



MODEL NO. CTV 1402

Service Manual

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CAUTION

Before servicing the chassis, read the "Safety Precaution", "X-Ray Radiation Precaution" and "Product Safety Notice" on Page 2 of this manual."

X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-Ray Radiation. To avoid such hazards, the high voltage must not be above the specified limit. The normal value of the high voltage of this receiver is 24KV at zero beam current (minimum brightness) under 220V AC power source. The high voltage must not, under any circumstances, exceed 25KV.
2. Each time a receiver requires servicing, the high voltage should be checked following the High Voltage Check procedure in this manual. It is recommended the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
3. The primary source of X-Ray Radiation in this TV Receiver is the picture tube. For continued X-Ray Radiation protection, the replacement tube must be exactly the same type tube as specified in the parts list.
4. Some parts in this receiver have special safety - related characteristics for X-Ray Radiation protection. For continued safety, parts replacement should be undertaken only after referring to the Product Safety Notice below.

SAFETY PRECAUTION

Warning: Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver.

The following are the necessary precautions to be observed before servicing this chassis.

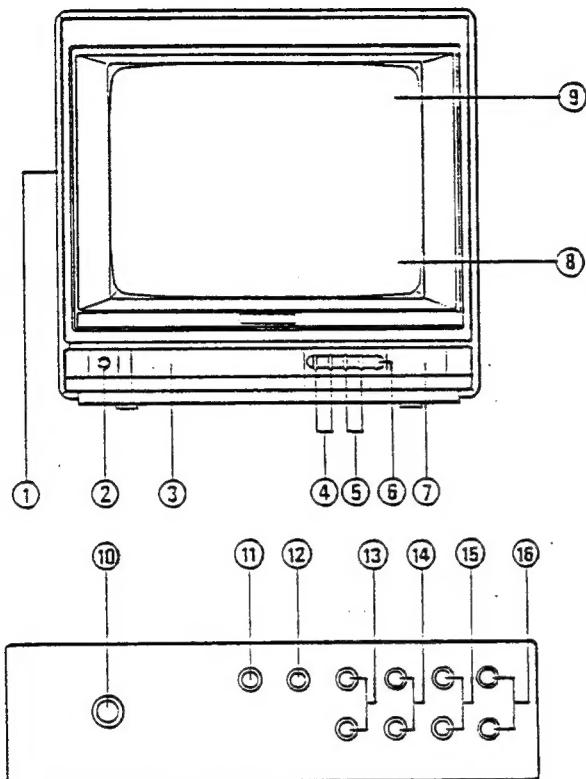
1. Since the power supply circuit of this receiver is directly connected to the AC power line, an isolation transformer should be used during any dynamic service to avoid possible shock hazard.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.
4. When replacing parts or circuit boards, disconnect the power cord.
5. When replacing a high wattage resistor (Metal oxide film resistor) on circuit board, keep the resistor 10mm (1/2 in.) away from circuit board.
6. Connection wires must be kept away from components with high voltage or high temperature.
7. If any fuse in this TV receiver is blown, replace it with the FUSE specified in the chassis parts list.
8. The receiver is designed to operate with 220V (50Hz) AC mains.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the X-Ray Radiation protection afforded by them cannot necessarily be obtained by using replacement components rated for higher wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements, electrical components having such features are marked with "▲" on the schematic diagram and the part list.

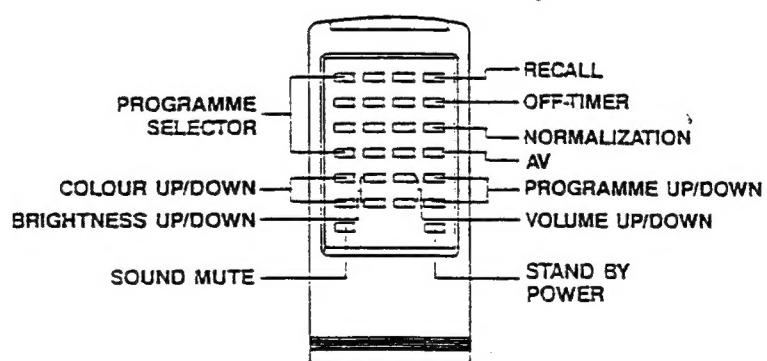
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-Ray Radiation or other hazards.

OPERATION CONTROLS



- ① SPEAKER
- ② POWER SWITCH
- ③ PRESET DOOR
- ④ VOLUME CONTROL BUTTONS (UP/DOWN)
- ⑤ PROGRAMME SELECTOR BUTTONS (UP/DOWN)
- ⑥ STAND-BY POWER
- ⑦ INFRA-RED RECEIVING WINDOW
- ⑧ VOLUME LEVEL INDICATOR
- ⑨ PROGRAMME POSITION INDICATOR
- ⑩ CONTRAST CONTROL
- ⑪ AV KEY
- ⑫ AFT ON
- ⑬ AUTO SEARCH BUTTONS (UP/DOWN)
- ⑭ FINE TUNING BUTTONS (UP/DOWN)
- ⑮ COLOUR CONTROL BUTTONS (UP/DOWN)
- ⑯ BRIGHTNESS CONTROL BUTTONS (UP/DOWN)

INSIDE THE PRESET DOOR



**WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION",
SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS
MANUAL**

CABINET BACK REMOVAL

1. Disconnect the antenna leads from the antenna terminals.
2. Remove 4 screws (A) securing the Cabinet Back to the Cabinet Front
3. Remove 2 screws (B) securing the Cabinet Back to the Jack Plate, and detach the cabinet back.

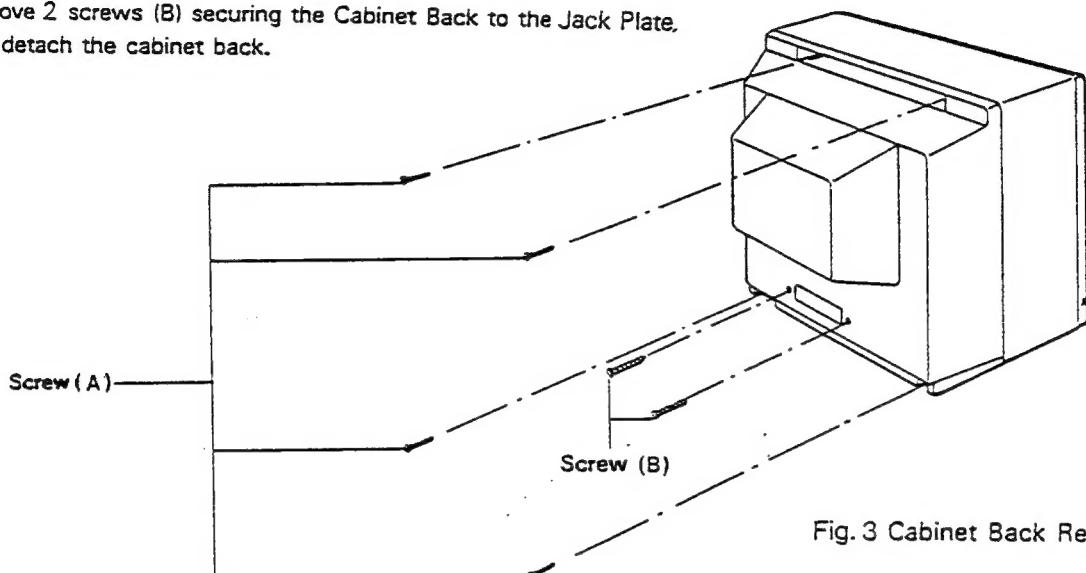


Fig. 3 Cabinet Back Removal

CHASSIS REMOVAL

Following the steps under Cabinet Back Removal, proceed as follows:

1. Unplug the CRT grounding wire socket connected to the CRT Socket Board.
2. Detach the picture tube anode cap.

Notice: Certainly discharge the high potential of the picture tube anode to the receiver chassis before removing the anode cap.

3. Detach the CRT Socket (CRT Socket Board).
4. Take out the chassis for the front cabinet.
5. Remove 7 screws securing the Control Board to the Cabinet Front.
6. Take out the control board from the front cabinet.

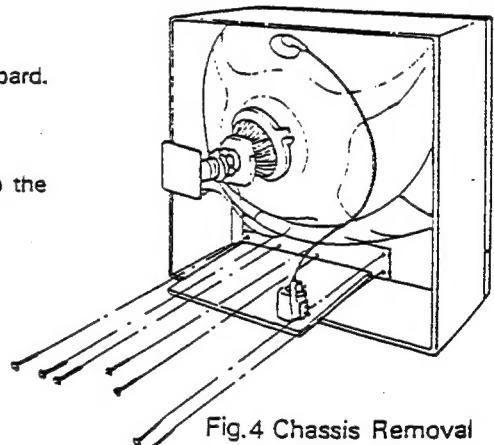


Fig. 4 Chassis Removal

PICTURE TUBE REMOVAL

Following the steps under CHASSIS REMOVAL proceed as follows:

1. Place the cabinet with the front down on a rolled pad or some suitable cushion placed, near the top edge of the front panel.
2. Remove 4 screws securing the picture tube to the cabinet, and detach the CRT with the degaussing coil, then grasp the face plate edge of the picture tube with both hands and take out the picture tube.
3. Detach the CRT grounding wire which is attached to the picture tube lugs with spring.

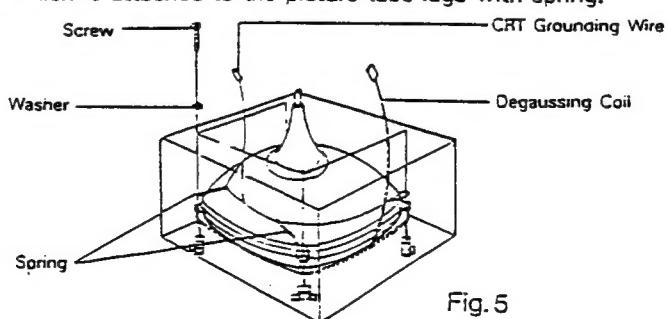


Fig. 5

GENERAL ADJUSTMENT INSTRUCTION

This receiver is transistorized and special care should be taken when servicing. Read the following matters that demand special attention before attempting adjustment.

1. Adjustment requires an exact procedure and should be undertaken only when necessary.
2. An isolation transformer should be used during any dynamic service to avoid possible shock hazard.
3. The test equipment specified or its equivalent is required to perform the alignment properly. Use of equipment which does not meet these requirements may result in improper alignment.
4. Correct matching of the equipment is essential. Failure to use proper matching will result in responses which can not represent the true operation of the receiver.
5. The AC power line voltage should be kept 215 to 225 volts (50Hz) during alignment.
6. Do not attempt to connect or disconnect any wire while the receiver is in operation. Make sure the power cord is disconnected before replacing parts in the receiver.
7. Unless otherwise noted, do not perform any adjustment until the receiver has been turned on for at least 10 minutes.

I. Picture And Sound I.F. Adjustment

Test Equipment:

1. AM/FM signal generator (4.5MHz – 6.5MHz).
2. Sweep/Marker signal generator (30 MHz – 60 MHz).
3. Sync. oscilloscope.
4. Oscilloscope (volt sensitivity over 10mV and input impedance over 1 Mohm, below 10PF).
5. Probe (Low capacitance).
6. High impedance electronic voltmeter on VTM (Input impedance having 100K ohm/V at least).
7. DC power supply (Source such as a battery or a well regulated and isolated DC bias supply).

(A) 31.9MHz, 40.4MHz Traps, Picture I.F. And AFC Adjustment

(a) 31.9MHz, 40.4MHz Traps Alignments (This alignment for the model with FTZ Type only.)

1. Connect the signal output of sweep/marker generator to the Tp of Tuner through 1 K ohm resistor and 1000PF capacitor. (See Fig.8.).
2. Connector the external detecting circuit between the syncoscilloscope input and TP 101 (Q101 – Collector). (See Fig. 9.).
3. Apply +16.5V DC across C314 on Main Board.
4. Tune T105 for maximum attenuation of 31.9MHz as shown in Fig.10.
5. Tune T106 for maximum attenuation of 40.4MHz as shown in Fig.10.

(b) P.I.F. Alignment:

1. Remove the external detecting circuit from Main Board.
2. Reconnect the sync oscilloscope input with 100K ohm resistor in series to TP102
3. Apply a +8V DC dummy AGC bias to TP103 (pin 5 of IC101) through 470 ohm resistor.

4. Apply a +3V DC to TP104 (pin 3 of IC405) and TP105 (pin 4 of IC405), through 100 ohm.
5. Tune T102 for maximum gain of 38.9MHz as shown in Fig.11.
6. Tune T101 for maximum gain of 34.47MHz as shown in Fig.11.

(c) AFC Alignment

1. Reconnect the sync oscilloscope input with 1M ohm resistor in series to TP106 (pin 14 of IC101).
2. Adjust T103 for the marker (38.9MHz) of AFC wave form at position. (See Fig.12) the centre.

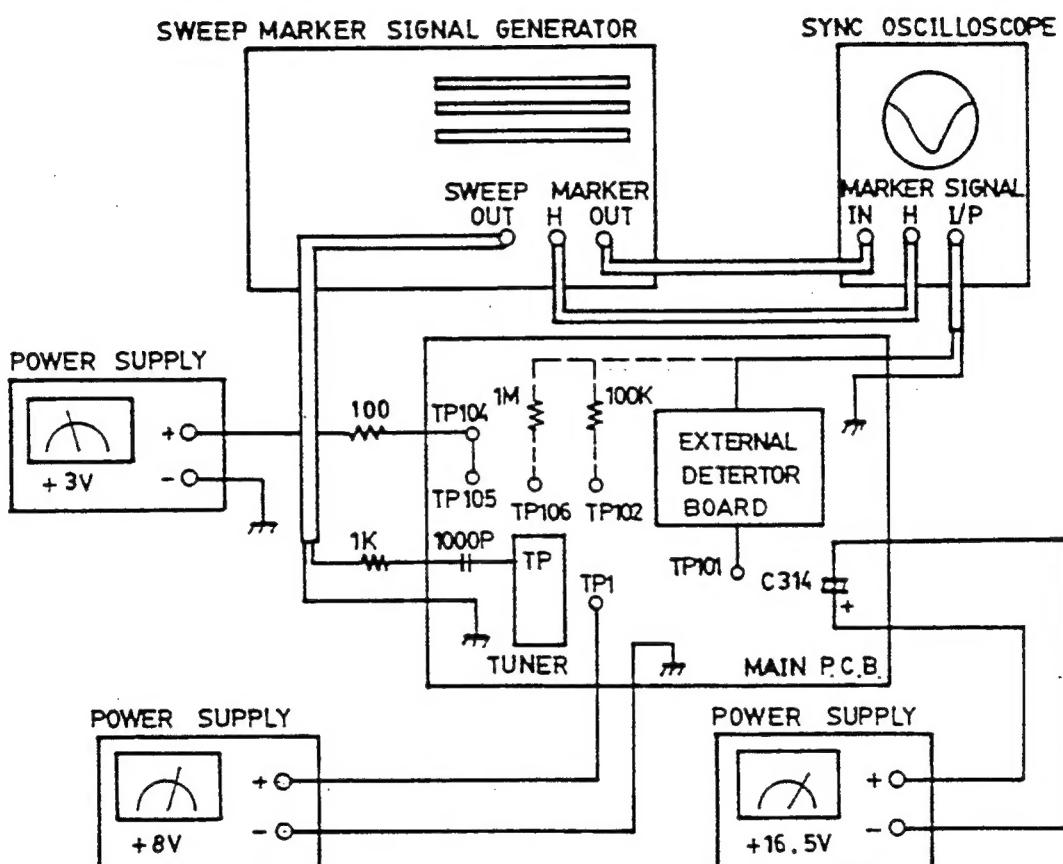


Fig. 8

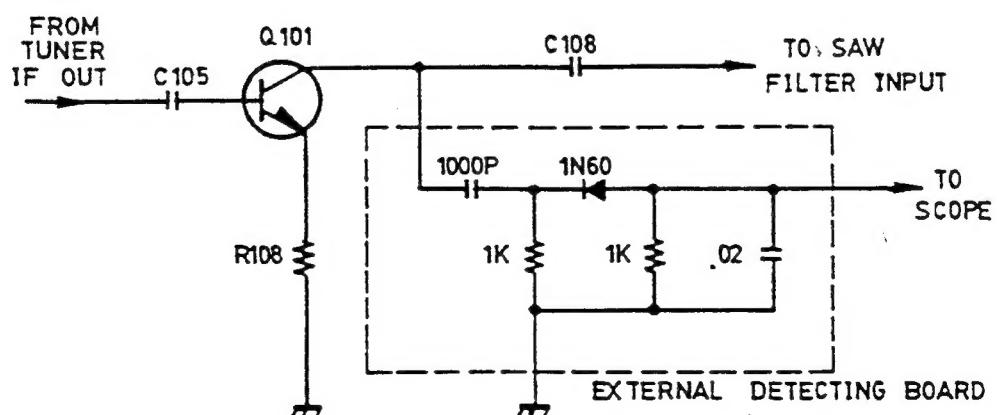


Fig. 9

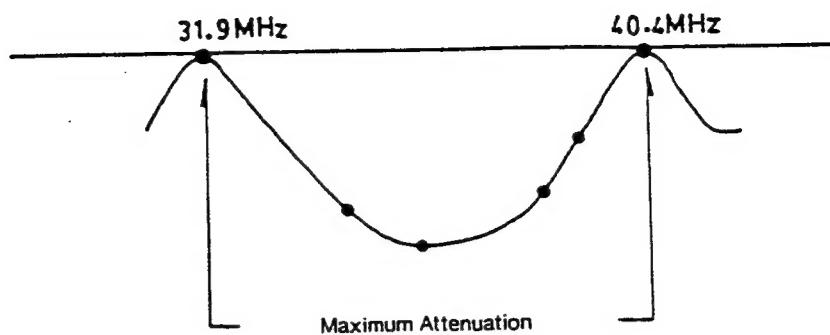
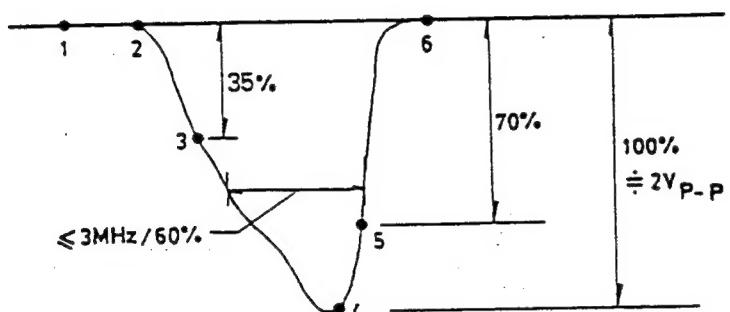


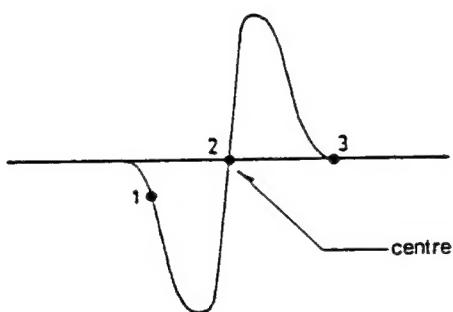
Fig. 10. 31.9, 40.4MHz Traps Response Curve



P.I.F. RESPONSE:

No	Marker of B/G
1	31.9 MHz
2	33.4 MHz
3	34.47 MHz
4	37.9 MHz
5	38.9 MHz
6	40.4 MHz

Fig. 11. P.I.F. Response Curve



AFC Response

No	Marker of B/G
1	37.9 MHz (+)
2	38.9 MHz (0)
3	40.4 MHz (-)

Fig. 12. AFC Response Curve.

(B) S.I.F. Alignment

1. The signal from AM/FM signal generator which is set at 5.5MHz with AF400Hz, 30% FM modulation, is applied to TP107 (between C127 and C128) through a 1K ohm resistor and a 1000pf capacitor as shown in Fig. 13.
2. Short TP103 (pin 5 of IC101) to ground.
3. Connect the oscilloscope input to TP109 (pin 23 of IC101)
4. Apply a +16.5V DC across C314 (TP108).
5. Adjust T104 for the marker (5.5MHz) of SIF waveform at the centre position Fig. 14.

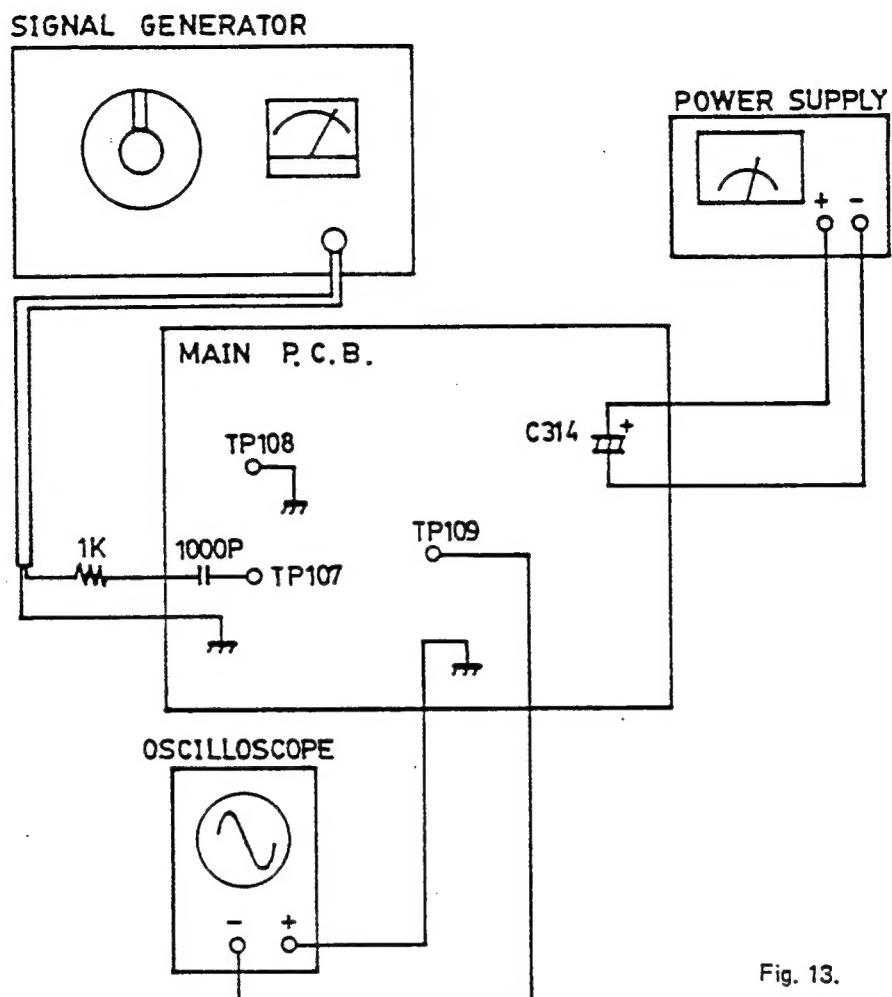


Fig. 13.

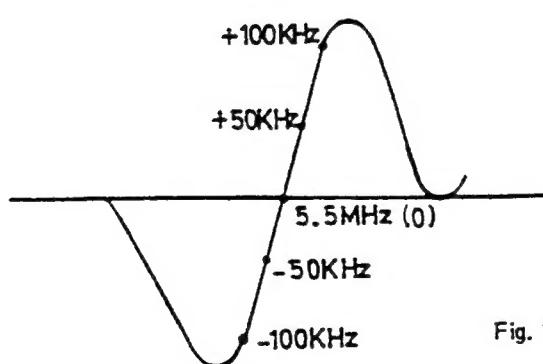


Fig. 14. SIF Response Curve

II. General Adjustment

1. Automatic Degaussing

An automatic degaussing coil is attached around the picture tube, degaussing the tube properly in about one second after the set is switched on. If the receiver is moved or faced in a different direction, the power must be switched off at least 15 minutes in order that the automatic degaussing circuit operates properly. External degaussing is necessary if the automatic degaussing proves ineffective after the set is moved. External degaussing is done by moving a degaussing coil circleywise in front of the face plate and then switch off the degaussing coil. If residual colour spots are still found on the screen, adjust the color purity and convergence.

2. B +(110V) Adjustment

CAUTION: To avoid X-Ray hazards, B+ voltage must be set correctly at 110V position.

(a) Make sure the AC Power supply is 220V, 50Hz.

(b) Switch on the TV Receiver, tune in an active channel and adjust Brightness/Contrast for maximum.

(c) Connect TP601 (Q606-Emitter) on the Main PCB to a reliable DC voltmeter.

(d) Adjust VR601 on Main PCB for B +110V voltage reading.

3. High Voltage Check

CAUTION: There is no high voltage adjustment in this chassis, B+ 110V voltage directly relates to the high voltage, it must be properly adjusted to insure the correct high voltage. The high voltage must not exceed 25KV under any conditions.

(a) Connect an accurate high voltage meter to the second anode cap of the picture tube.

(b) Turn on the receiver, set Brightness the Contrast controls to minimum. (Zerobeam current)

(c) Make sure the high voltage does not exceed 24KV.

(d) No matter whether the luminance, contrast and chrominance controls are set to maximum or minimum, the high voltage must be kept under 25KV.

4. Focusing Adjustment

(a) Receive the philips pattern signal

(b) Set the contrast control to the maximum position.

(c) Adjust fours control of flyback tranformer for a well-defined, sharpest display in the centre of the screen.

5. Height Adjustment

(a) Receive the philips pattern signal.

(b) Adjust the height control (VR205) to slightly overscan the screen.

6. Horizontal Position

- (a) Receive the philips pattern.
- (b) Adjust horizontal hold control (VR203) to the centre

7. Vertical Hold Adjustment

- (a) Receive the philips pattern.
- (b) Short TP201 (pin 37 of IC202) to GND by jumper wire.
- (c) Connect a frequency counter to TP202 (between C306 and C307).
- (d) Adjust Vertical Hold control (VR204) for 45 - 46Hz reading.

8. Colour Sync Adjustment

- (a) Tune in a colour bar signal.
- (b) Set the colour control to maximum.
- (c) Cut off the colour killer by connection the TP203 (pin 2 of IC202) and TP204 (pin 12 of IC202) with 10K ohm resistor.
- (d) Short TP205 (L206) to GND by jumper wire.
- (e) Adjust the colour sync variable capacitor (C242) for the colour bar pattern stand still or drift slowly across the picture screen.

9. PAL Matrix Adjustment

- (a) Tune in a colour bar signal
- (b) Use oscilloscope with 2 channels input and set to "X - Y" mode.
- (c) Channel 1 (x) is connected to TP206 (pin 21 of IC202) (R - Y)
- (d) Channel 2 (Y) is connected to TP207 (pin 22 of IC202) (B - Y)
- (e) Adjust amplitude balance VR202 until the centre points of the two wave forms bring together (Fig.15.)
- (f) Adjust T205 until all other points of two waveforms bring together (Fig.15.)
- (g) Adjust T206 to obtain the maximum hexagon.

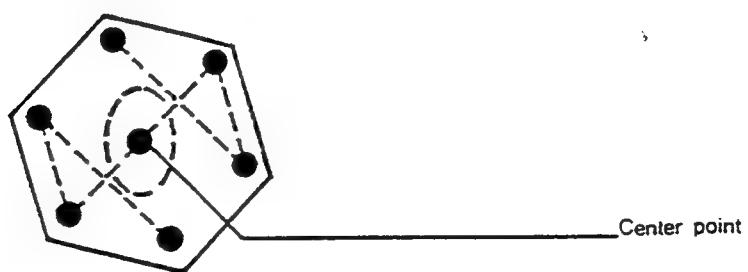


Fig. 15 Matrix Vector Diagram.

10. Delay AGC Adjustment

- (a) Tune in the colour bar pattern signal
- (b) Set input signal level at 60 dB
- (c) Connect a high impedance DC Voltmeter to tuner AGC terminal.
- (d) Adjust RF AGC control (VR101) for 5.2V ± 0.2 V reading.
- (e) Increase input signal level to 100 dB.
- (f) Check for normal picture, sound and sync.

11. White Balance Adjustment

- (a) Receive a monochrome signal and warm up the set for 15 minutes.
- (b) Set the R.G.B. cut-off (VR501, VR503, VR505) at the centre position.
- (c) Rotate the G.B. drive controls (VR502, VR504) fully counter-clockwise first, then clockwise rotate back to 1/3 position.
- (d) Turn the screen control to minimum position.
- (e) Disconnect the Y signal output terminal connector.
- (f) Short TP202 (between C306 and C307) to GND by jumper wire.
- (g) Rotate the screen control gradually clockwise until the first horizontal line appears on the screen.
- (h) If the first horizontal line is in red, adjust VR503, VR504 to increase the green and blue component level to get a white horizontal line.
- (i) Remove the Jumper wire, connect back the Y signal output terminal and switch back to TV.
- (j) Receive the philips pattern signal and set the contrast colour control to minimum and brightness control to maximum
- (k) Adjust VR502, VR504 to maintain a good white balance at the brightest part of screen.

12. On-Screen Position Adjustment

- (a) Select the position "29" by the programme button (+ or -).
- (b) Tune in the philips pattern signal.
- (c) Press the "Recall" button once, the large character size of programme No. will be changed to small size for approx. 3 seconds.
- (d) Adjust C413 for the programme No "29" (small size) position as shown in Fig.16.

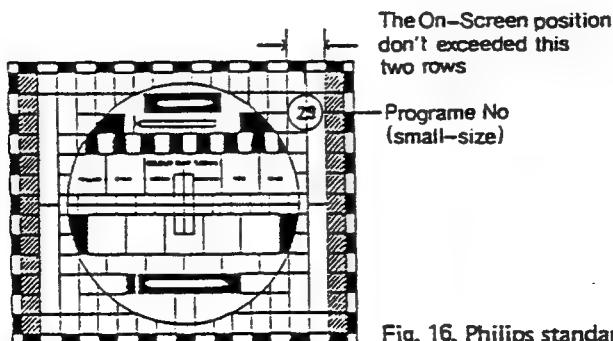


Fig. 16. Philips standard colour pattern

13. Sub-Brightness Adjustment

- (a) Receive the philips pattern signal.
- (b) Set the contrast, Brightness and colour controls to minimum position.
- (c) Adjust sub-brightness (VR404) until light just appears on the screen.

III. Color Purity And Convergence Adjustment

1. Color Purity Adjustment

NOTE: Before attempting any purity adjustments, the receiver should be operated for at least fifteen minutes.

- (a) Demagnetize the picture tube and cabinet using a degaussing coil.

- (b) Turn the Contrast and Brightness controls to maximum.

- (c) Adjust Red and Blue controls (VR501) and (VR505); to provide only a green raster. Advance the Green Bias control (VR502) if necessary.

- (d) Loosen the clamp screw holding the yoke backward to provide vertical green belt (Zone) in the picture screen.

- (e) Remove the Rubber Wedges.

- (f) Rotate and spread the tabs of the purity magnet (see Fig.21.) around the neck of the picture tube until the green belt is in centre of the screen. At the same time, centre the raster vertically.

- (g) Move the yoke slowly forward or backward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily.

- (h) Check the purity of the red and blue raster by adjusting the Bias controls.

- (i) Obtain a white raster, referring to white balance adjustment.

- (j) Proceed with convergence adjustment.

2. Convergence Magnet Assembly Positioning

Convergence Magnet Assembly and Rubber Wedges need mechanical positioning following Fig. 20.

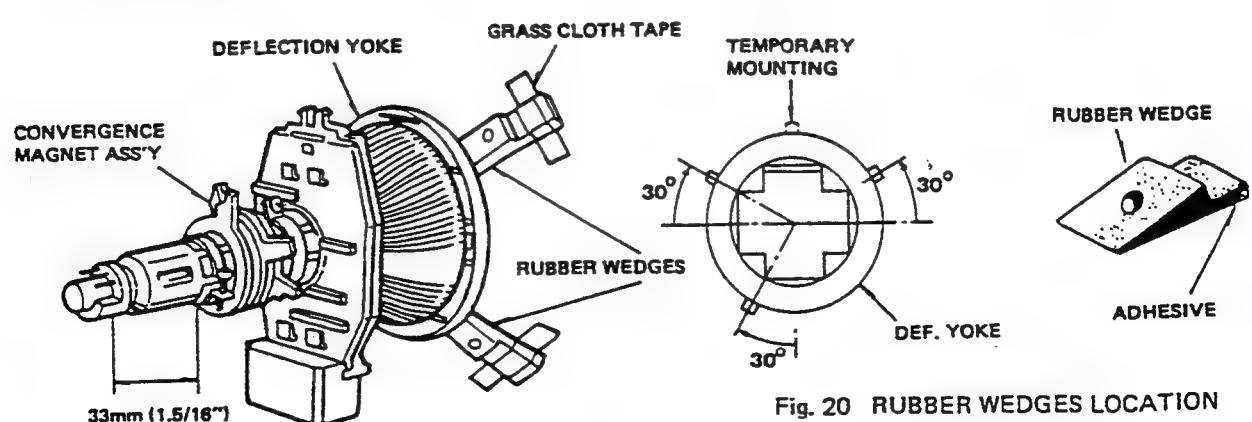


Fig. 20 RUBBER WEDGES LOCATION

3. Centre Convergence Adjustment

NOTE: Before attempting any convergence adjustments, the receiver should be operated for at least fifteen minutes.

- (a) Receive crosshatch pattern with a color bar signal generator.

- (b) Adjust the Brightness and Contrast controls for well defined pattern.

- (c) Adjust two tabs of the 4 Pole Magnets to change the angle between them (see Fig.21.) and superimpose red and blue vertical lines in the centre area of the picture screen. (See Fig.22.)
- (d) Turn both tabs of the 4 Pole Magnets to change the angle to superimpose red and blue horizontal lines at the centre of screen (See Fig.21.)
- (f) Repeat adjustments 3, 4, 5, keeping in mind red, green and blue movement, because 4 Pole Magnets and 6 Pole Magnets interact and make dot movement complex.

4. Circumference Convergence Adjustment

NOTE: This adjustment requires Rubber Wedges and Glass Cloth Tapes.

- (a) Loosen the clamping screws of deflection yoke to allow the yoke to tilt.
- (b) Place a wedge as shown in Figure 6 temporarily. (Do not remove cover paper on adhesive part of the wedge).
- (c) Tilt front of the deflection yoke up or down to obtain better convergence in circumference. (See Fig.22.) Push the mounted wedge into the space between picture tube and the yoke to hold the yoke temporarily.
- (d) Place other wedge into bottom space and remove the cover paper to stick.
- (e) Tilt front of the yoke right or left obtain better convergence in circumference. (See Fig.22.)
- (f) Hold the yoke position and put another wedge in either upper space. Remove cover paper and stick the wedge on picture tube to hold the yoke.
- (g) Detach the temporarily mounted wedge and put it in another upper space. Stick it on picture tube to fix the yoke.
- (h) After placing three wedges, recheck over all convergence. Tighten the screw firmly to hold the yoke tightly in place.
- (i) Stick 3 grass cloth tapes on wedges as shown in Figure 20.

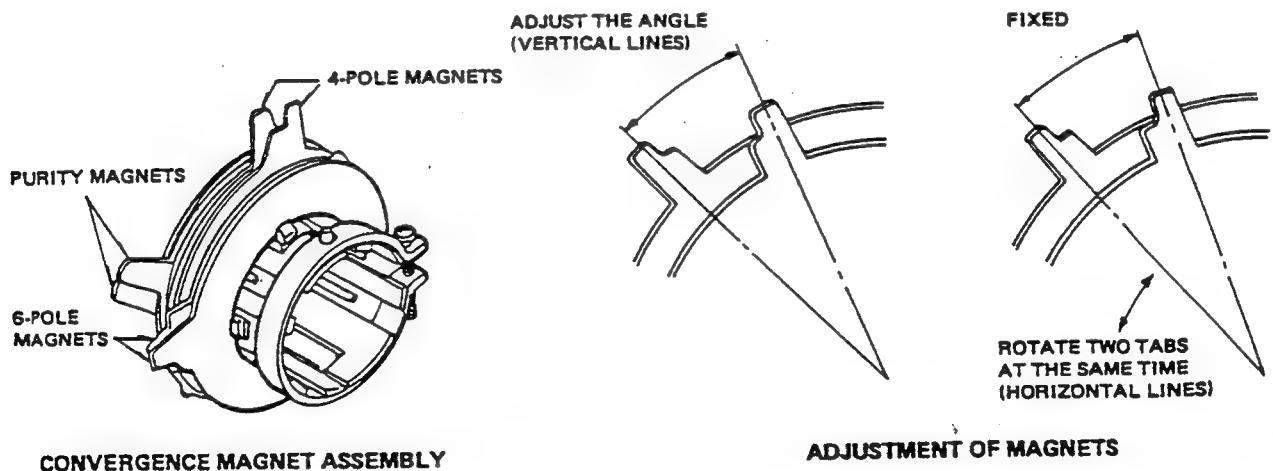


Fig.21.

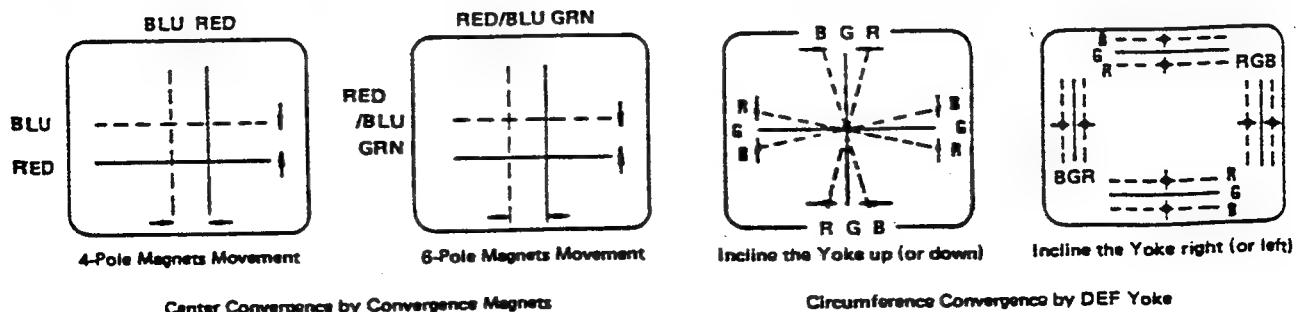
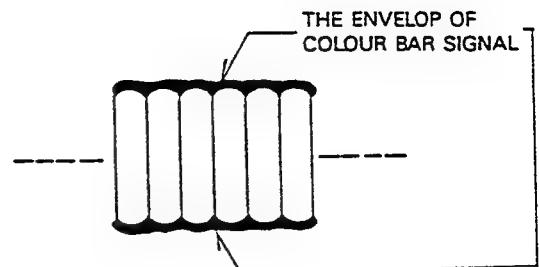


Fig. 22. Dot Movement Pattern

IV. Colour Decoder Adjustment For SECAM System

1. Bell Filter Adjustment

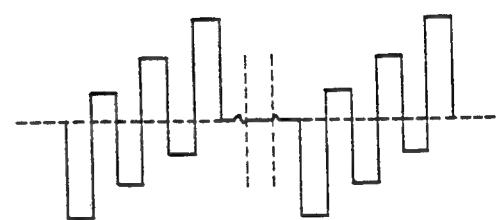
- (a). Apply a SECAM colour bar signal (60dB level) to the input.
- (b). Connect an oscilloscope to Pin 27 of IC201.
- (c). Adjust T203 to make the envelop of colour bar signal into flat. (Fig. 23)



SECAM COLOUR BAR SIGNAL Fig. 23.

2. Identifier Adjustment

- (a). Apply a SECAM colour bar signal (60dB level) to the input.
- (b). Connect a high impedance DC Voltmeter to Pin 26 of IC201.
- (c). Adjust T204 to the indent filter voltage into maximum value ($\sim 10V$).



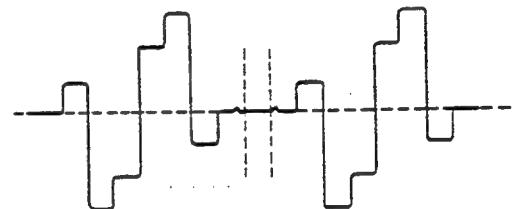
B-Y SIGNAL Fig. 24.

3. B-Y Demodulation

- (a). Apply a SECAM colour bar signal to the input.
- (b). Set Brightness, Contrast and Colour controls to the maximum.
- (c). Connect an oscilloscope to Pin 2 of socket H.
- (d). Adjust T201 to obtain a B-Y signal with correct chrominance output, as shown in Fig. 24.

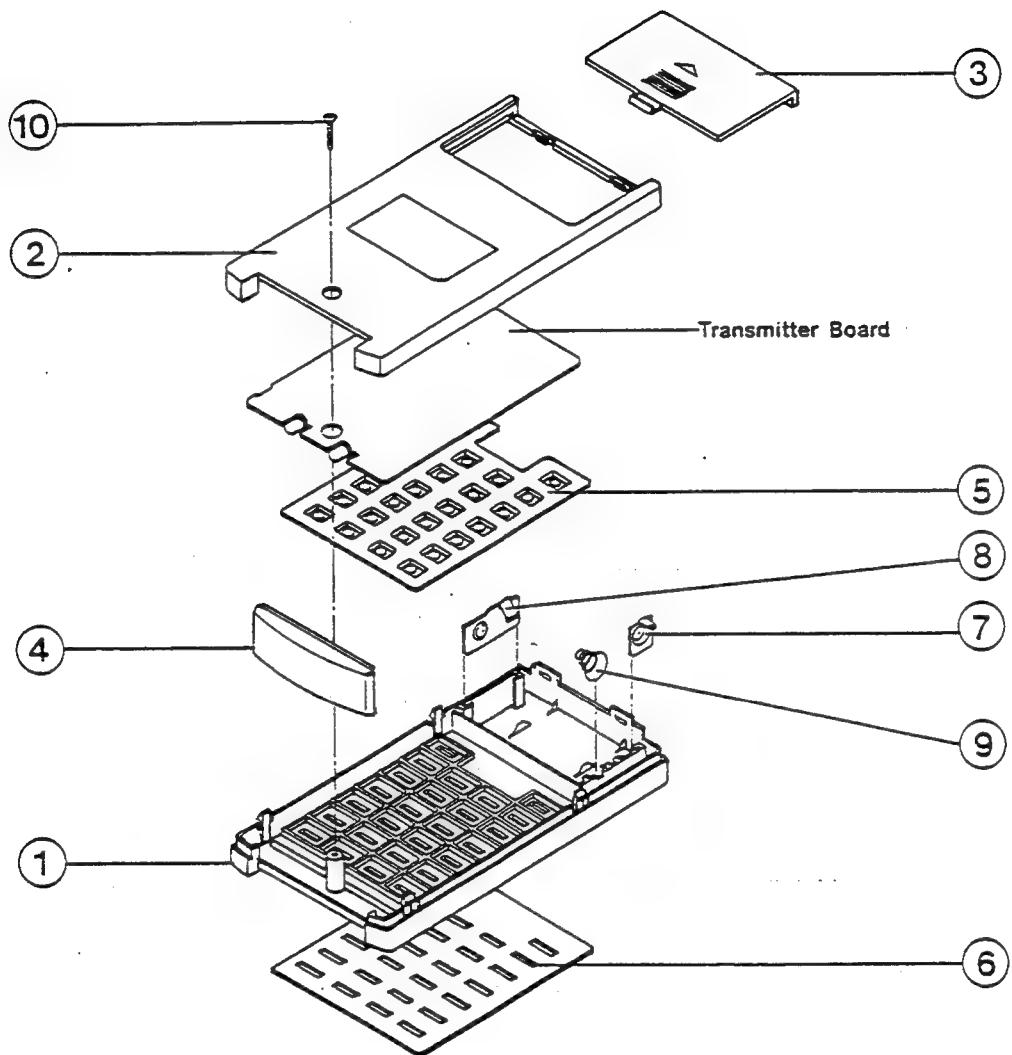
4. R-Y Demodulation

- (a). Apply a SECAM colour bar signal.
- (b). Set Brightness, Contrast and Colour controls to maximum.
- (c). Connect an oscilloscope to Pin 3 of socket H.
- (d). Adjust T202 to obtain an R-Y signal with correct chrominance output, as shown in Fig. 25.



R-Y SIGNAL Fig. 25.

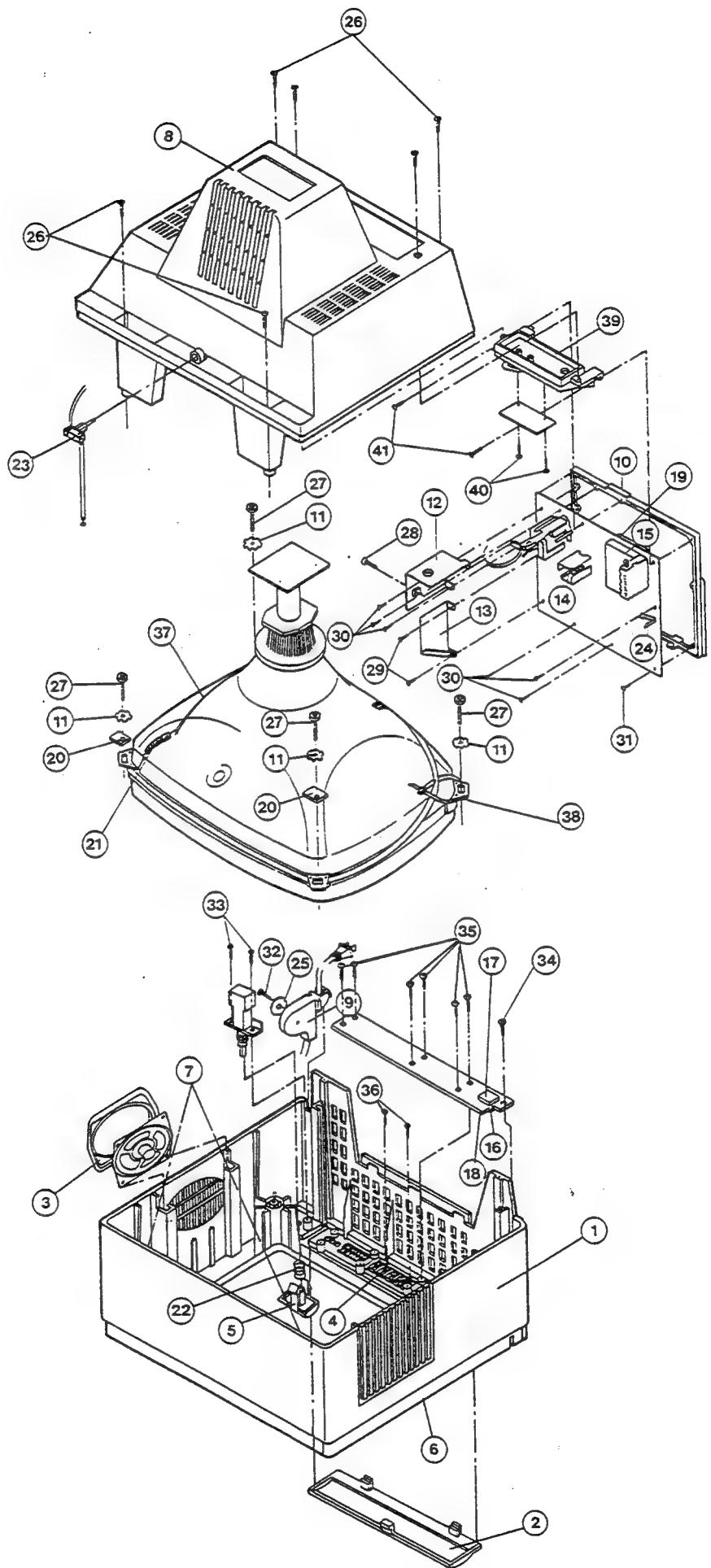
REMOTE CONTROL UNIT



MECHANICAL PART LIST

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	A01-A0078-01	Top Cabinet	6.	D00-A0049-00	Handset Inlay
2.	A01-A0079-01	Bottom Cabinet	7.	B00-A0025-00	Battery Contact Plate (+)
3.	A01-A0080-00	Battery Door	8.	B00-A0024-00	Battery Contact Plate (+/-)
4.	A01-A0081-00	Infrared Lens	9.	E00-A0009-00	Battery Contact Spring (-)
5.	D01-A0020-00	Rubber Contact Plate	10.	M3P-T2601-08	Screw T2.6x8 P/H (+)

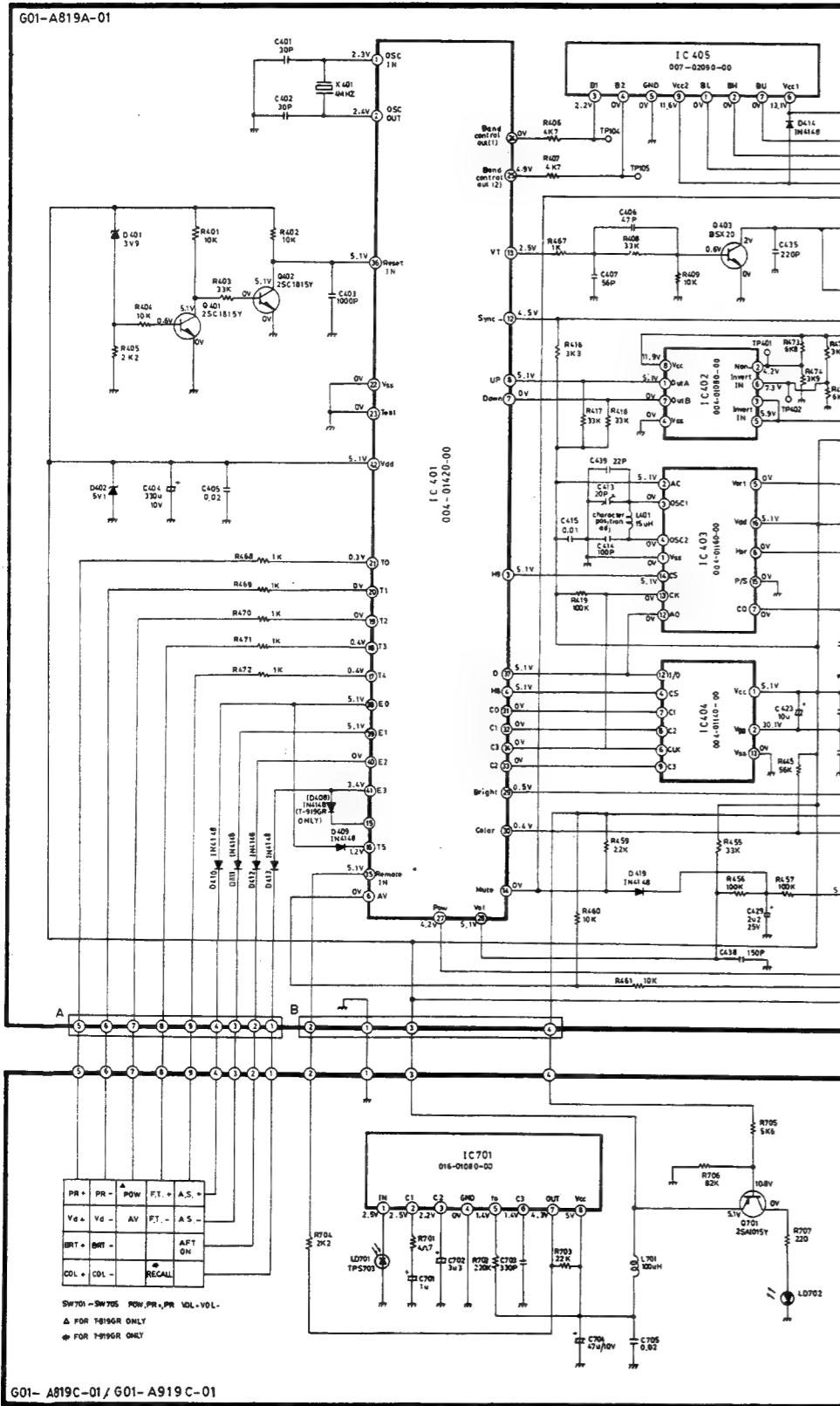
EXPLODED VIEW OF MAIN UNIT

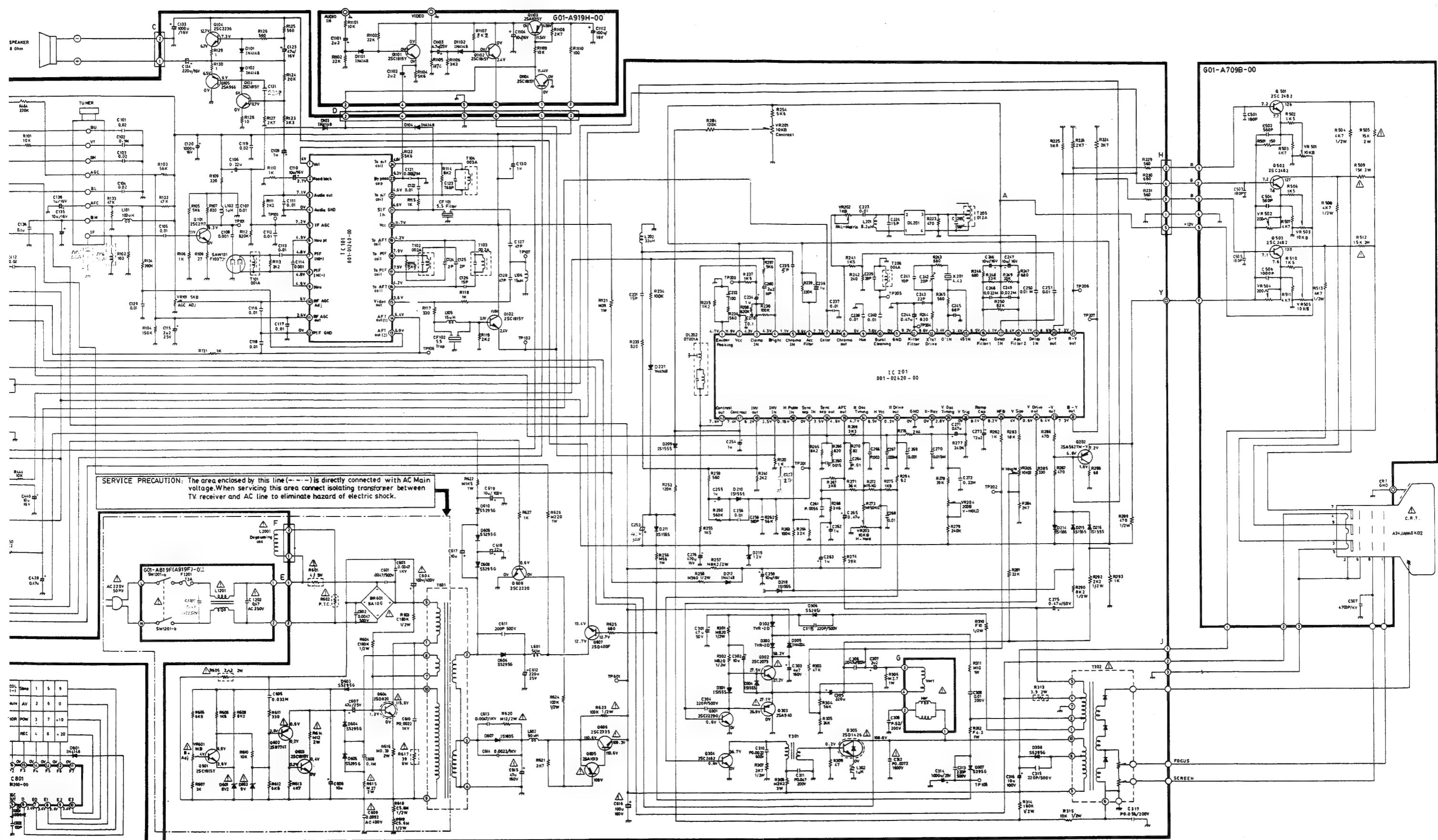


MECHANICAL PARTS LIST FOR MAIN UNIT

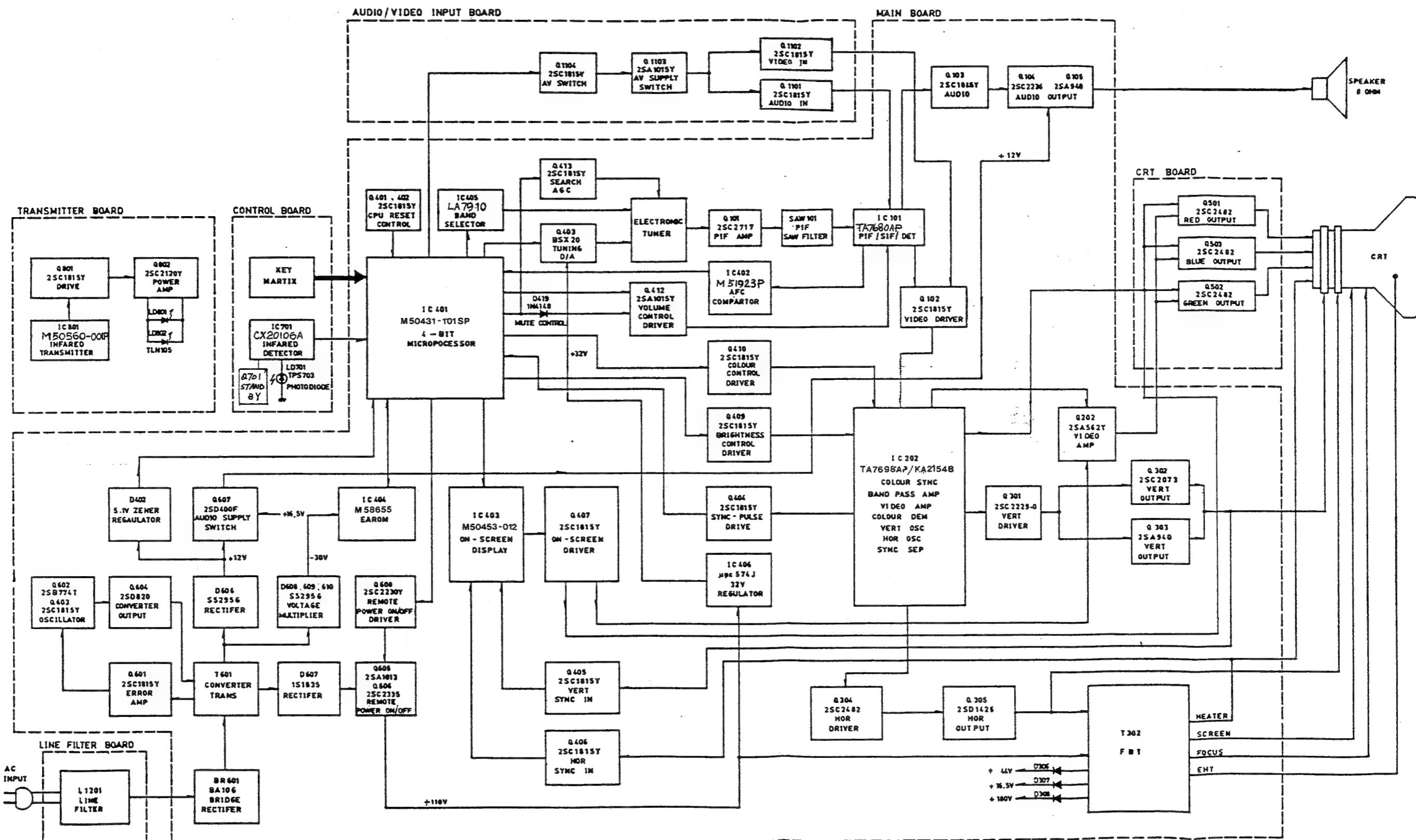
ITEM	PART NO.	DESCRIPTION
1	A01-A0088-01	FRONT CABINET-METALLIC DARK GRAY SPRAY W/SILK SCREEN
2	A01-A0089-01	PRESET DOOR-METALLIC DARK GRAY SPRAY W/SILK SCREEN
3	A01-A0090-00	SPEAKER HOLDER-BLACK MOULDED
4	A01-A0091-00	PUSH BUTTON-BLACK MOULDED
5	A01-A0092-00	POWER SW. KNOB-BLACK MOULDED
6	A01-A0093-00	INFRARED LENS
7	A01-A0094-00	CABINET MTG. HOLDER-BLACK MOULDED
8	A01-A0134-00	BACK CABINET-BLACK MOULDED
9	A01-A0009-00	AC CORD HOLDER-BLACK MOULDED
10	A03-B0111-00	CHASSIS BRACKET-BLACK MOULDED
11	B01-A0001-01	METAL WASHER
12	B01-A0005-00	HEAT SINK BRACKET FOR POWER
13	B01-A0006-00	HEAT SINK FOR HORIZONTAL AMP.
14	B01-A0007-00	HEAT SINK TRANSISTOR
15	B01-A0008-00	PIF SHIELDING COVER
16	B00-A0027-00	SHIELD CAN 'A'
17	B00-A0028-00	SHIELD CAN 'B'
18	B00-A0029-00	SHIELD CAN 'C'
19	B00-A0041-00	SHIELD CAN
20	B00-A0052-00	METAL FIXER (FOR CRT FIXING)
21	E00-A0001-00	GROUNDING WIRE SPRING DIA. 7 X 14 FOR TWISTED WIRE
22	E00-A0011-00	POWER KNOB SPRING
23	F00-A0004-00	INDOOR ANTENNA-SINGLE TYPE (VHF) DIA. 8 X 200
24	J00-W0002-00	WIRE LUG
25	L00-P3514-F0	FIBRE WASHER
26	M1B-T3501-25	T3.5 X 25 P/H (+) FOR BACK/FRONT CAB. MTG.
27	M1B-T4001-25	T4 X 25 B/H (+) FOR CRT/FRONT CAB. MTG.
28	M1B-T4001-10	T4 X 10 B/H (+) FOR HEAT SINK/FLY BACK TRANS MTG.
29	M1P-T3001-12	T3 X 12 P/H (+) FOR HEAT SINK/CHASSIS BKT. MTG.
30	M1P-T3001-12	T3 X 12 P/H (+) FOR HEAT SINK/CHASSIS BKT. MTG.
31	M1P-T3001-08	T3 X 8 P/H (+) FOR MAIN P.C.B./CHASSIS BKT. MTG.
32	M1P-T3001-08	T3 X 8 P/H FOR AC CORD/AC CORD HOLDER MTG.
33	M1P-T3001-10	T3 X 10 P/H (+) FOR POWER SW./FRONT CAB. MTG.
34	M1B-T2600-10	T2.6 X 10 B/H (+) FOR CONTROL P.C.B./FRONT CAB. MTG.
35	M1B-T2600-06	T2.6 X 8 B/H (+) FOR CONTROL P.C.B./FRONT CAB. MTG.
36	M1B-T2600-06	T2.6 X 6 B/H (+) FOR PUSH BUTTON/FRONT CAB. MTG.
37	P01-01086-01	TWISTED WIRE L = 860 MM
38	A04-A0114-00	CABLE TIE L = 8"
39	A03-B0135-00	JACK PLATE-BLACK MOULDED
40	M1P-T3001-08	T3 X 8 P/H (+) FOR AV BOARD/JACK PLATE MTG
41	M1B-T3001-12	T3 X 12 B/H (+) FOR JACK PLATE/P.C.B./CHASSIS BKT. MTG.

T-819 GR / T-919 GR (W/AV) FTZ



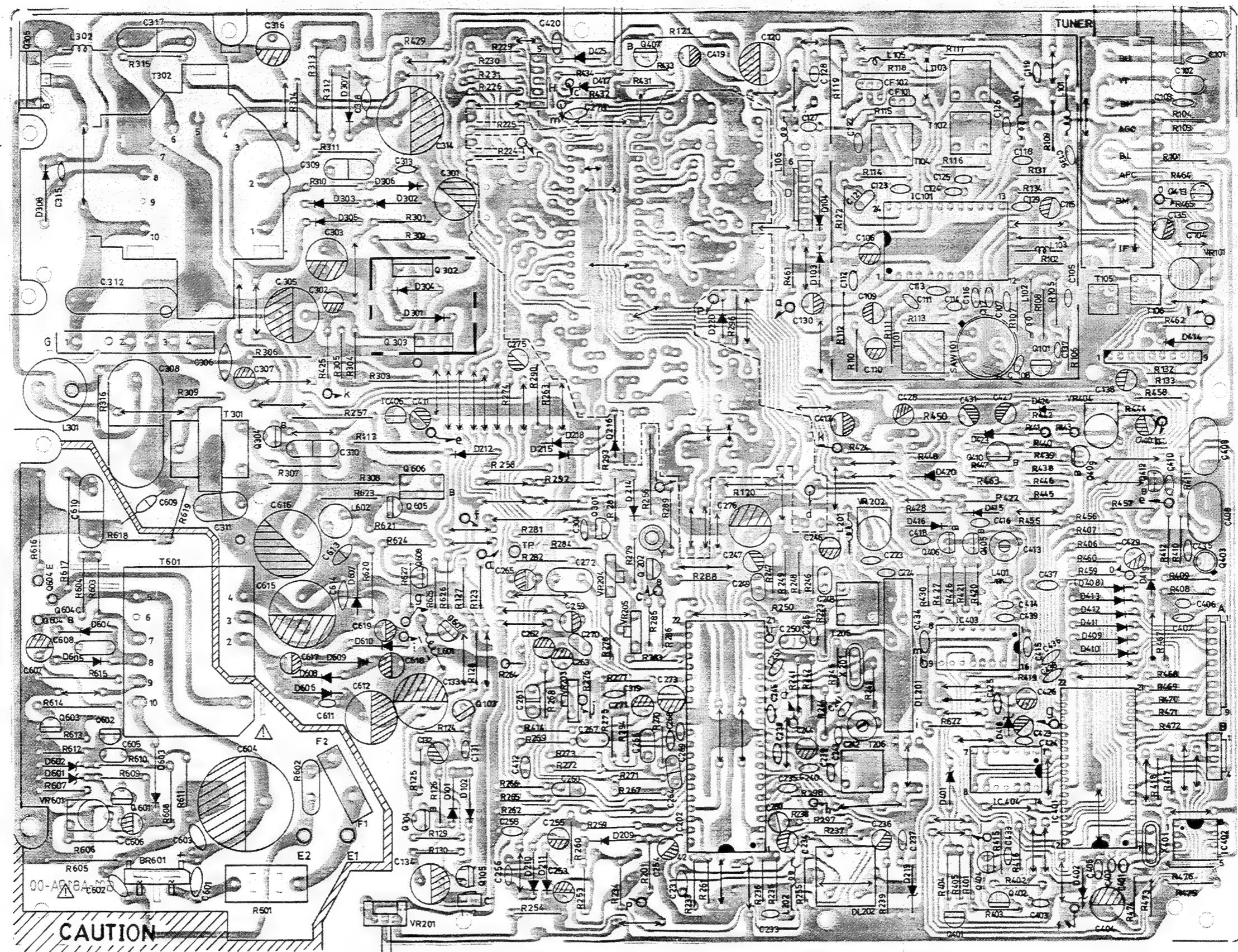


BLOCK DIAGRAM

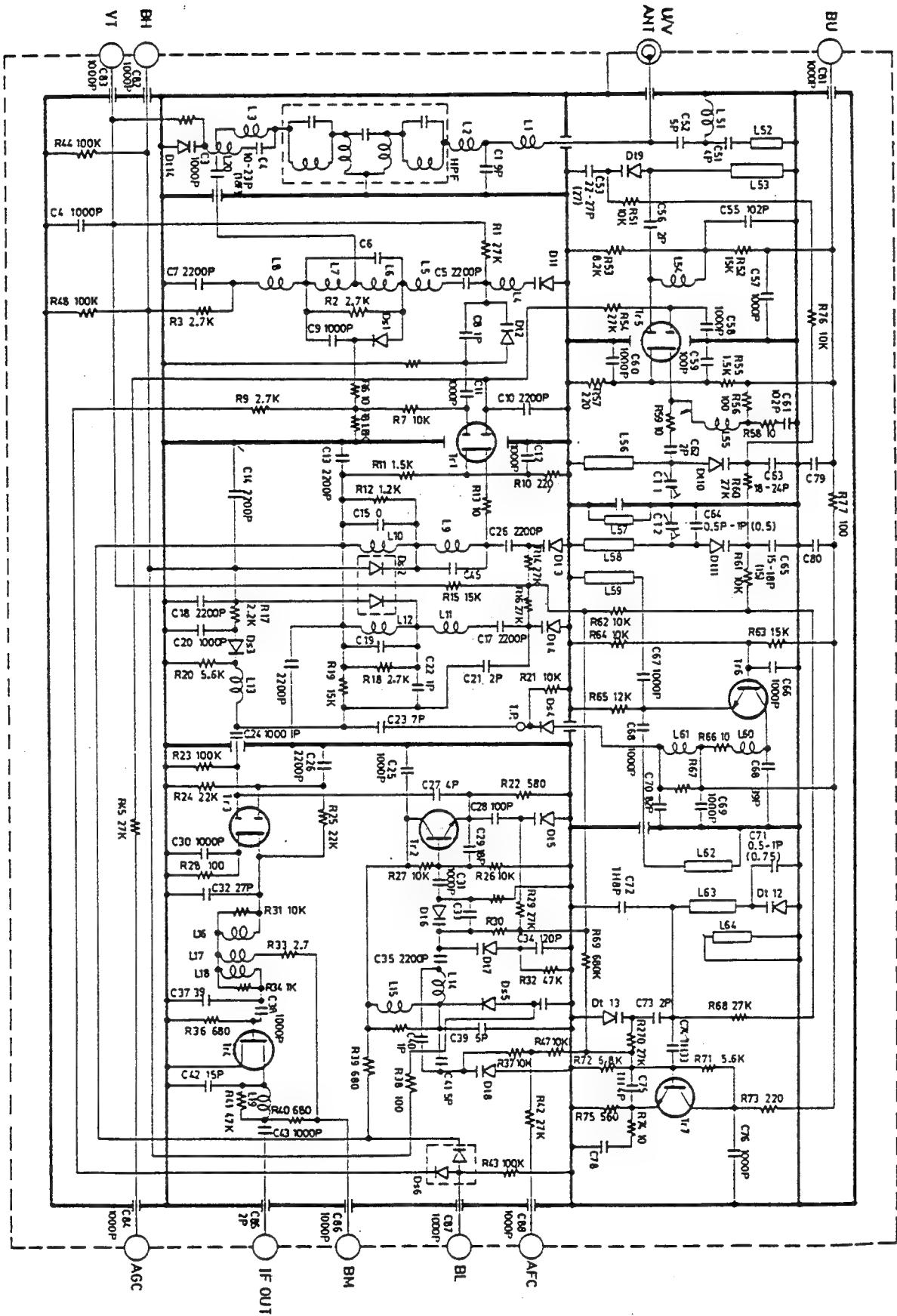


COMPONENT VIEW OF MAIN P.C. BOARD

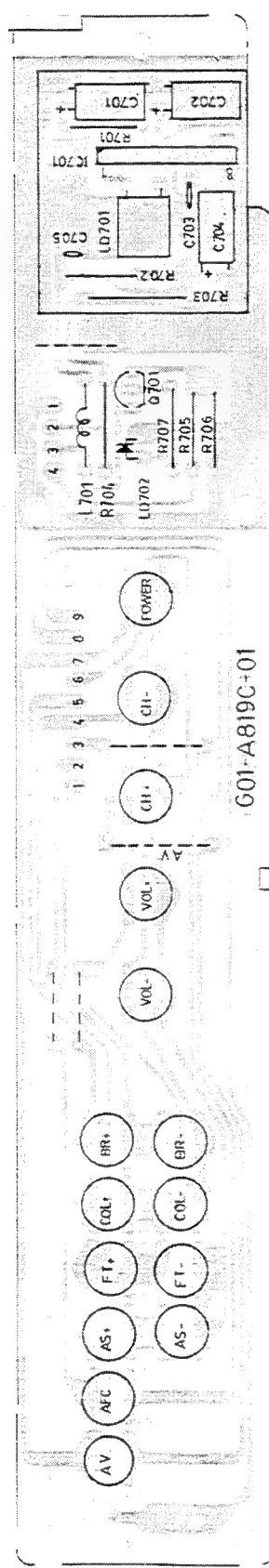
G01-A 819A-01



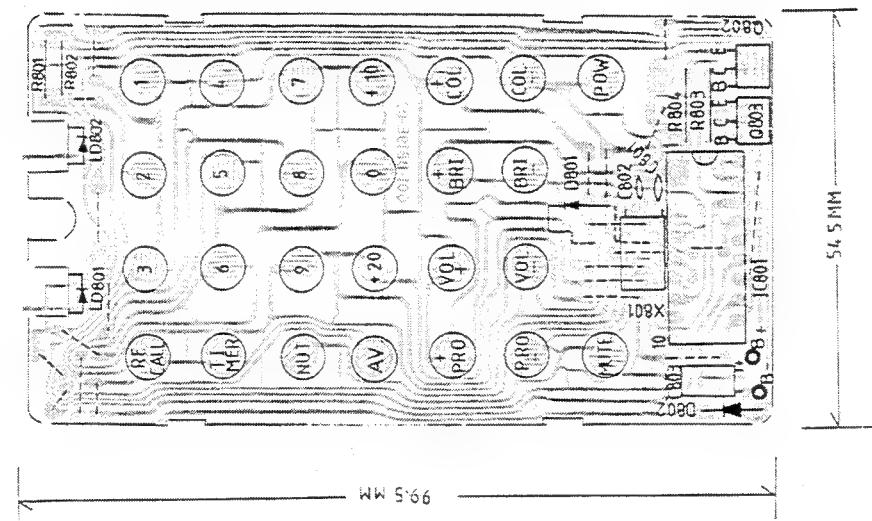
TUNER CIRCUIT



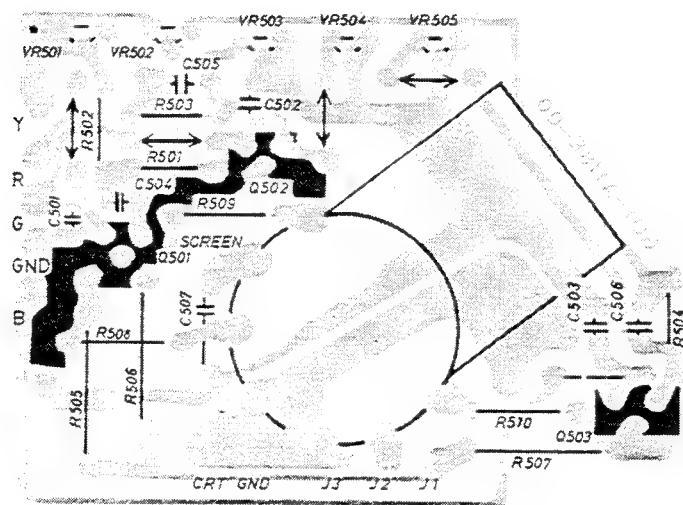
COMPONENT VIEW OF CONTROL P.C. BOARD



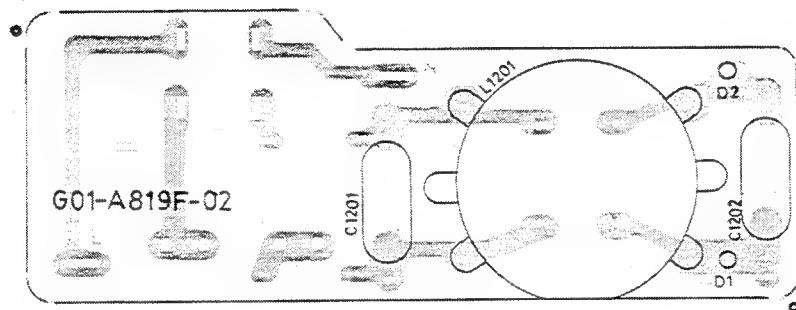
COMPONENT VIEW OF HANDSET P.C. BOARD



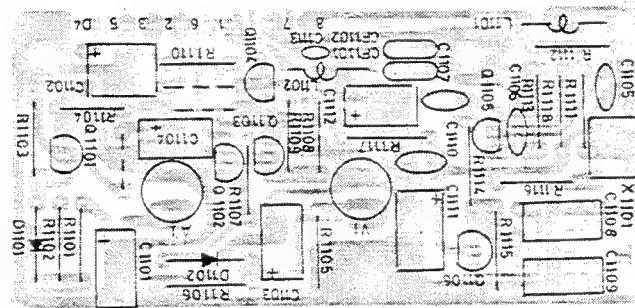
COPPER SIDE OF CRT P.C. BOARD



BOTTOM VIEW OF AC LINE FILTER BOARD



COMPONENT VIEW OF A.V. INPUT P.C. BOARD



**WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION",
SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.**

CAUTION: The areas marks  in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. Before replacing any of these components read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

ABBREVIATIONS

Resistors: CF — Carbon Film Resistor

CC — Carbon Composition Resistor
MF — Metal Film Resistor
MO — Metal Oxide Resistor
FU — Fusible Resistor
NI — Non-Inflammable Resistor
SF — Semi-fixed Resistor

Capacitors: CE — Ceramic Capacitor

PO — Polyester Film Capacitor
PP — Polypropylene Film Capacitor
EL — Electrolytic Capacitor
TC — Temperature Compensating Capacitor
MP — Metal Polyester Film Capacitor
AC — AC Capacitor

Wire: SJ — Single Jumper Wire AWG 22 (UL1007)

STJ — Strand Jumper Wire AWG 22 (UL1007)
ST — Strand Jumper Wire AWG 24 (UL1007)
STW — Strand Jumper Wire AWG 26 (UL1007)

Remark:

- 1) All resistors are $\frac{1}{4}W$, $\pm 5\%$ unless otherwise noted.
- 2) All capacitors are 50WV capacitor unless otherwise noted

ELECTRICAL PARTS LIST

SCHEMATIC NO.	PART NO.	DESCRIPTION	SCHEMATIC NO.	PART NO.	DESCRIPTION
*** MAIN P. C. B. ASSEMBLY ***					
TRANSISTOR					
Q101	A01-C717A-00	2SC2717	VR202, 405,	C01-B103B-C0	1KB MATRIX, B+, SUB-COLOR
Q103, 201, 401,	A01-C815E-00	2SC1815-Y	601		5KB AGC
402, 404, 405,			VR101	C01-B503B-C0	10KB H-HOLD V-HEIGHT
406, 407, 409,			VR203, 205	C02-A104B-C0	200KB V-HOLD
410, 413, 601,			VR204	C02-A205B-C0	10MM ROTARY VR10KB CONTRAST
603, 102			VR201	**C07-C104B-B0	10KB SUB-BRIGHTNESS (HORI-TYPE)
Q301	A01-C229D-00	2SC2229-0	VR404	**C01-B104B-C0	10KB SUB-BRIGHTNESS (HORI-TYPE)
Q202	A01-A562E-00	2SA562-TMY			
Q302	A01-C073D-00	2SC2073	CARBON FILM RESISTOR +/-5% 1/4W		
Q303	A01-A940D-00	2SA940	R295	D01-A056C-D0	5.6 OHM
Q304	A01-C482D-00	2SC2482	R129, 130	D01-A010C-D0	1 OHM
Q305	A01-D426A-00	2SD1426	R128	D01-A100C-D0	10 OHM
Q602	A01-B774D-00	2SB774-T	R108	D01-A270C-D0	27 OHM
Q604	**A01-D431A-00	2SD1431	R309	D01-A470C-D0	47 OHM
Q608	A01-C230E-00	2SC2230-AY	R288	D01-A680C-D0	68 OHM
Q607	A03-D400F-00	2SD400F	R270, 294	D01-A820C-D0	82 OHM
Q605	A01-A013E-00	2SA1013Y	R102,	D01-A101C-D0	100 OHM
Q606	A02-C335C-00	2SC2335 ALTERNATE BUV46 (A01-V046C-00)	R229, 230, 231	D01-A151C-D0	150 OHM
Q104	A01-C236D-00	2SC2236-0	R433	D01-A181C-D0	180 OHM
Q105	A01-A966D-00	2SA966-0	R109, 206, 243	D01-A221C-D0	220 OHM
Q412	A01-A015E-00	2SA1015Y	R242	D01-A241C-D0	240 OHM
Q403	A06-S002D-00	BSX20	R117, 214, 285,	D01-A331C-D0	330 OHM
DIODE					
D101, 102, 211,	B01-01148-00	1N4148	611		
212, 220,			R209	D01-A391C-D0	390 OHM
409, 410, 411,			R223, 286, 287,	D01-A471C-D0	470 OHM
412, 413, 221			430		
414, 415, 416,			R125, 126, 236,	D01-A561C-D0	560 OHM
417, 419, 420, 421,			245, 259		
425, 423, 424, 104			R211, 216, 227,		
D201, 203, 204,	B01-01555-00	1S1555	228, 246, 247,		
205, 206, 207,			434, 625	D01-A681C-D0	680 OHM
209, 210, 213,			R107, 233, 244,	D01-A821C-D0	820 OHM
214, 215,			266		
D216, 218, 301,			R106, 110, 115,	D01-A102C-D0	1 KOHM
304			118, 131, 240,		
D307, 308, 603,	B01-02529-00	S5295G	251, 252, 282,		
604, 605, 606, 608,			420, 421, 120		
609, 610			R426, 427, 462,		
D306	B01-02529-01	S5295J	467, 468, 469,		
D607	B01-02835-00	1S1835	470, 471, 472,		
D302, 303	B01-02002-00	TVR-2D	627, 235		
BR601	B01-01010-00	DBA10G	R205,	D01-A122C-D0	1.2 KOHM
D305	B01-01004-00	1N4004S	R208, 213, 237,	D01-D152C-D0	1.5 KOHM
D202, 217, 219	B01-04120-00	12 V ZENER (GZA 12Y)	241, 255, 424,		
D601	B01-04082-00	8.2 V ZENER (GZA 8.2Y)	R207, 212, 275,		
D602	B01-04090-00	9.1V ZENER (GZA 9.1Y)	608	D01-A182C-D0	1.8 KOHM
D401	**B01-04039-00	3.9V ZENER (UZ 3.9Y)	R111, 113, 119	D01-A222C-D0	2.2 KOHM
D402	**B01-04051-00	5.1V ZENER (GAZ 5.1Y)	261, 291, 405		
D418	**B01-04300-00	30V ZENER (GZA 30Y)	R276, 458	D01-A242C-D0	2.4 KOHM
D103	B04-08060-00	1N60	R127, 202, 284,	D01-A272C-D0	2.7 KOHM
			621		
			R123, 210, 215,	D01-A332C-D0	3.3 KOHM
			224, 225, 226,		
			269, 416, 446,		
			607		
			R267, 268	D01-A362C-D0	3.6 KOHM
			R116, 232, 429,	D01-A392C-D0	3.9 KOHM
			474, 475		

ELECTRICAL PARTS LIST

SCHEMATIC NO.	PART NO.	DESCRIPTION	SCHEMATIC NO.	PART NO.	DESCRIPTION
R406, 407, 613	D01-A472C-D0	4.7 KOHM			
R105, 122, 297,	D01-A562C-D0	5.6 KOHM			
414					
R264, 425, 428,	D01-A682C-D0	6.8 KOHM			
440, 450, 473,					
476, 606, 612					
R114, 265, 449,	D01-A822C-D0	8.2 KOHM			
609					
R101, 217, 219,	D01-A103C-D0	10 KOHM			
293, 401, 402,					
404, 409, 422,					
463, 438, 460, 461					
R443, 444, 447,					
610					
R280	D01-A153C-D0	15 KOHM			
R283	D01-A183C-D0	18 KOHM			
R124	D01-A203C-D0	20 KOHM			
R220, 281, 415,					
439, 459	D01-A223C-D0	22 KOHM			
R305, 448	D01-A243C-D0	24 KOHM			
R274,	D01-A273C-D0	27 KOHM			
R221, 222, 248,	D01-A333C-D0	33 KOHM			
249, 403, 408,					
410, 411, 412,					
417, 418					
R431, 432, 455					
R271, 442	D01-A363C-D0	36 KOHM			
R203, 278	D01-A393C-D0	39 KOHM			
R132, 133, 303	D01-A473C-D0	47 KOHM			
R103, 204, 262,	D01-A563C-D0	56 KOHM			
304, 445					
R441	D01-A683C-D0	68 KOHM			
R250	D01-A823C-D0	82 KOHM			
R201, 218, 238,	D01-A104C-D0	100 KOHM			
263, 296, 419, 234					
456, 457, 465					
R104, 253	D01-A124C-D0	120 KOHM			
R464	D01-A224C-D0	220 KOHM			
R277, 279	D01-A244C-D0	240 KOHM			
R239	D01-A334C-D0	330 KOHM			
R134	D01-A394C-D0	390 KOHM			
R260	D01-A564C-D0	560 KOHM			
R112, 298	D01-A824C-D0	820 KOHM			
CARBON FILM RESISTOR +/-5% 1/2W					
R289	D01-A361C-F0	360 OHM			
R307	D01-A272C-F0	2.7 KOHM			
R315	D01-A103C-F0	10 KOHM			
R623, 624	D01-A104C-F0	100 KOHM			
R314	D01-A154C-F0	150 KOHM			
R622	D01-A153C-F0	1.5 KOHM			
METAL FILM RESISTOR					
R272	D00-C153B-D0	15 KOHM +/-2% 1/4W			
R273	D00-C154B-D0	150 KOHM +/-2% 1/4W			
METAL OXIDE RESISTOR					
R258	D04-D561C-F0	560 OHM +/-5% 1/2W			
R301, 302	D04-D821C-F0	820 OHM +/-5% 1/2W			
R292	D04-D222C-F0	2.2 kohm +/-5% 1/2W			
R306	D04-D027C-G0	2.7 OHM +/-5% 1W			
R311	D04-D100C-G0	10 OHM +/-5% 1W			
R121	D04-D390C-G0	39 OHM +/-5% 1W			
R626	D04-D221C-G0	220 OHM +/-5% 1W			
R290	D04-D222C-G0	2.2 KOHM +/-5% 1W			
R616	D04-D003C-H0	0.33 OHM +/-5% 2W			
R614, 260	D04-D120C-H0	12 OHM +/-5% 2W			
R256, 615	D04-D270C-H0	27 OHM +/-5% 2W			
R257	D04-D822C-H0	8.2 KOHM +/-5% 2W			
R413	D04-D153C-H0	15 KOHM +/-5% 2W			
R308	D04-D222C-I0	2.2 KOHM +/-5% 3W			
FUSIBLE RESISTOR					
R310	D03-E100C-F0	10 OHM +/-5% 1/2W			
R312	D03-E043C-G0	4.3 OHM +/-5% 1W			
NON-INFLAMMABLE RESISTOR					
R601	D03-G040D-J0	4 OHM +/-10% 5W KW-SQZ			
R605	D03-G022D-H0	2.2 OHM +/-10% 2W KW-KNP			
R313	D03-G039D-H0	3.9 OHM +/-10% 2W KW-KNP			
R617	D03-G390D-K0	39 OHM +/-10% 6W KW-KNP			
R602	D06-H300Z-00	P.T.C. THERMISTOR			
CARBON COMPOSITION RESISTOR					
R618, 619	D05-B565D-F0	5.6 MOHM +/-10% 1/2W			
R603, 604	D05-B184D-F0	180 KOHM +/-10% 1/2W			
C242, 413	E04-B200A-00	TRIMMER CAPACITOR 20PF			
CERAMIC CAPACITOR					
C124, 125	F01-C020F-A0	2PF 50V +/-0.25PF			
C281	F01-C050F-C0	5PF 50V +/-5%			
C241	F01-C100F-C0	10PF 50V +/-5%			
C126, 224, 231	F01-C150F-C0	15PF 50V +/-5%			
C243, 439	F01-C220F-C0	22PF 50V +/-5%			
C137, 257	F01-C270F-C0	27PF 50V +/-5%			
C401, 402	F01-C300F-C0	30PF 50V +/-5%			
C202	F01-C330F-C0	33PF 50V +/-5%			
C127, 128, 406	F01-C470F-C0	47PF 50V +/-5%			
C212, 235, 407	F01-C560F-C0	56PF 50V +/-5%			
C207, 245	F01-C680F-C0	68PF 50V +/-5%			
C206, 211, 239	F01-C390F-C0	39PF 50V +/-5%			
C429	F01-C820F-C0	82PF 50V +/-5%			
C233, 414	F01-C101F-C0	100PF 50V +/-5%			
C222, 437, 438	F01-C151F-C0	150PF 50V +/-5%			
C282, 283, 284	F01-C201F-C0	200PF 50V +/-5%			
C205, 210, 229,	F01-C221F-C0	220PF 50V +/-5%			
230, 274, 435					
C209, 214, 433,	F01-C331F-C0	330PF 50V +/-5%			
434					
C418	F01-C391F-C0	390PF 50V +/-5%			
C258	F01-C561F-C0	560PF 50V +/-5%			

ELECTRICAL PARTS LIST

SCHEMATIC NO.	PART NO.	DESCRIPTION	SCHEMATIC NO.	PART NO.	DESCRIPTION
C105, 107, 111, 112, 113, 116, 117, 118, 122, 129, 201, C204, 217, 218, 219, 221, 223, 237, 238, 240, 251, 256, C268, 415, 416, 424, 425	F01-C103F-G0	0.01UF 50V +/-20%	C132, 253	F01-E476C-E0	47UF 16V +/-20%
119, 405, 410, 412			C134, 279	F01-E227C-E0	220UF 16V +/-20%
C108, 114, 208, 213, 269, 403, 436	F01-C102F-D0	1000PF 50V +/-10%	C276	F01-E477C-E0	470UF 16V +/-20%
C304, 313, 315, 318, 611, 131	F05-C221N-D0	220PF 500V +/-10%	C120, 133	F01-E108C-E0	1000UF 16V +/-20%
C306, 601, 602	F05-C472N-D0	0.0047UF 500V +/-10%	C607	F01-E476D-E0	47UF 25V +/-20%
C614	F05-C2220-D0	0.0022UF 1KV +/-10%	C612	F01-E227D-E0	220UF 25V +/-20%
C603, 613	F05-C4720-D0	0.0047UF 1KV +/-10%	C314	F01-E228D-E0	1000UF 25V +/-20%
C609	F05-C222W-E0	AC CAPACITOR 0.0022UF AC400V +/-20%	C273	F01-E225F-D0	2.2UF 50V +/-10%
POLYESTER FILM CAPACITOR			C106	F01-E224F-E0	0.22UF 50V +/-20%
C248, 249, 250	F11-M223H-D0	0.022UF 100V +/-10%	C244, 265, 275, F01-E474F-E0		0.47UF 50V +/-20%
C267, 605	F11-M333H-D0	0.033UF 100V +/-10%	428, 271		
C102, 220, 608	F11-M104H-D0	0.1UF 100V +/-10%	C109, 130, 138, 203, 225, 226, 227, 234, 236, 254, 255, C262, 263, 411, 417, 426, 419, 427, 431	F01-E105F-E0	1UF 50V +/-20%
C272, 409	F11-M224H-D0	0.22UF 100V +/-10%	C115, 307, 429	F01-E225F-E0	2.2UF 50V +/-20%
C270	F11-M153H-D0	0.015UF 100V +/-10%	C280	**F01-N225F-E0	2.2UF 50V N.P. +/-20%
C408	F11-M474H-D0	0.47UF 100V +/-10%	C302, 423, 606, F01-E106F-E0		10UF 50V +/-20%
C121	F11-M332H-D0	0.0033UF 100V +/-10%	617		
POLYPROPYLENE FILM CAPCITOR (B TYPE)			C618	F01-E226F-E0	22UF 50V +/-20%
C260	F08-D152F-C0	0.0015UF 50V +/-5%	C301	F01-E476F-E0	47UF 50V +/-20%
C261	F08-D562F-C0	0.0056UF 50V +/-5%	C305	F01-E227F-E0	220UF 50V +/-20%
C266	F08-D302F-C0	0.003UF 50V +/-5%	C316, 619	F01-E106H-F0	10UF 100V +/-20%
C264	F08-D103F-C0	0.01UF 50V +/-5%	C303	F01-E475I-F0	4.7UF 160V +50-10%
POLYPORPYLENE FILM CAPACITOR			C615	F01-E476I-F0	47UF 160V +50-10%
C310	F08-P222N-D0	0.0022UF 630V +/-10%	C616	F01-E107I-F0	100UF 160V +50-10%
C309	F08-P103K-D0	0.01UF 200V +/-10%	C604	F01-E107M-F0	100UF 400V +50-10%
C311	F08-P473K-D0	0.047UF 200V +/-10%	PCB001	**G01-A819A-00	MAIN P.C. BOARD 291MM X 219MM X 1.6MM
C317	F08-P563K-D0	0.056UF 200V +/-10%	L102	H05-0102A-00	PEAKING COIL 1UH
C308	F08-P524K-D0	0.52UF 200V +/-10%	L104	H05-0103A-00	PEAKING COIL 5.6UH
C312	F08-P722P-C0	0.0072UF 1.6KV +/-5%	L201	H05-0104A-00	PEAKING COIL 8.2UH
C610	F08-P2220-D0	0.0022UF 1200V /-10%	L105, 106, 401	H05-0105A-00	PEAKING COIL 15UH
T-C CERAMIC CAPACITOR			L202	H05-0106A-00	PEAKING COIL 33UH
C123	F01-L680F-C0	68PF 50V +/-5%	L101	H05-0111A-00	PEAKING COIL 100UH
ELECTROLYTIC CAPACITOR (SINGLE ENDED TYPE)			L302	**H13-0203A-00	CHOKE COIL 1UH
C404	F01-E337B-E0	330UF 10V +/-20%	L602	H02-0101A-00	CHOKE COIL 90UH
C110, 135, 215, 216, 228, 246, 247, 259, 277, 440	F01-E106C-E0	10UF 16V +/-20%	L601	H02-1031A-00	CHOKE COIL 5UH
			T101	H01-1301A-00	PIF MATCHING COIL
			T102, 103	H01-1302A-00	PIF DET COIL
			T104	H01-1303A-00	SIF DET COIL
			T205	H01-1401A-00	DELAY LINE MATCHING COIL
			T206	H01-1402A-00	BURST CLEANING COIL
			T203	H01-1403A-00	BELL FILTER COIL
			T204	H01-1404A-00	IDENT COIL
			T201, 202	H01-1405A-00	DISCRI BURST
			DL202	H01-0701A-00	Y-DELAY LINE
			T105, 106	H01-1801A-00	7MM TRAP COIL
			T301	I01-0401A-00	HORIZONTAL DRIVE TRANSFORMER
			T302	I12-0501A-00	FLYBACK TRANSFORMER CF65A
			T601	I07-0601A-00	SWITCHING TRANSFORMER

ELECTRICAL PARTS LIST

SCHEMATIC NO.	PART NO.	DESCRIPTION	SCHEMATIC NO.	PART NO.	DESCRIPTION
TAIKO TL-25 V-TYPE CONNECTOR					***CRT P.C.B. ASSEMBLY***
SOCKET C	J05-0102A-00	2 PIN WAFER TL-25P-02-V1	TRANSISTOR		
SOCKET B	**J05-0104A-00	4 PINS WAFER TL-25P-04-V1	Q501, 502, 503	A01-C482D-00	2SC2482
SOCKET A	**J05-0109A-00	9 PINS WAFER TL-25P-09-V1	SEMI-FIXED RESISTOR		
SOCKET Y	J03-0401A-00	SMK M-1 CONNECTOR WAFER 1 PIN	VR501, 502	**C01-A502B-C0	500B (RVF8W01-501) G.B. - DRIVE
SOCKET G	J03-0406A-00	SMK M-1 CONNECTOR WAFER 6 PINS	V4503, 504,	C01-A503B-C0	5KB (RVF8W01-502) R.G.B. 505 - CUT OFF
SOCKET E,F	J05-01010-00	TAIKO TS-80 CONNECTOR			
SOCKET D	J05-0106A-00	6 PINS WAFER TL-25P-06-V1	CARBON FILM RESISTOR 1/4W +/-5%		
X201	M07-A4434-00	CRYSTAL 4.43361875MHZ	R501, 502, 503, D01-A151C-D0	150 OHM	
X401	**M02-A4004-00	CRYSTAL 4.00 MHZ	504		
	NO1-02B01-01	TUNER B/G SYSTEM (UVE33-W14)			
INTEGRATED CIRCUIT			CARBON COMPOSITION RESISTOR 1/2W +/-10%		
IC101	001-01240-00	TA7680AP	R508, 509, 510	D05-B472C-F0	4.7 KOHM
IC202	001-02420-00	TA7698AP			
IC201	004-01300-00	M51397AP	METAL OXIDE RESISTOR		
IC406	007-06020-00	L5630	R505, 506, 507	D04-D153C-H0	15 KOHM 2W +/-5%
IC401	**004-01420-00	M50431-101SP	CERAMIC CAPACITOR		
IC404	**004-01140-00	M58655P	C506	F01-C102F-D0	.001UF 50V +/-10%
IC403	**004-01160-00	M50453-012	C507	F05-C4720-D0	.0047UF 1KV +/-10%
IC403	**004-01080-00	M51923P	C504, 505	F01-C821F-D0	820PF 50V +/-10%
IC405	**007-02090-00	LA7910	PCB002	G01-A118E-00	CRT PCB 90MM X 66M X 1.6MM
CF101	X02-01001-00	CERAMIC FILTER SFE5.5 MHZ		V01-05001-60	PICTURE TUBE SOCKET
CF102	X02-02001-00	CERAMIC FILTER TPS5.5 MHZ	CRT		
SAW101	X01-03002-00	TV PIF SAW FILTER F1037B	GROUNDING	J05-01010-00	TAIKO TS-80 CONNECTOR
DL201	Y02-01401-01	ULTRASONIC DELAY LINE ALTERNATE (Y03-01401-01) GLASS DELAY LINE OR EFD-END- EN645A11G (6704-030200-00)			
SINGLE JUMPER WIRE AWG22 (L2/L3=5MM X 2 NON TINNED)			STRAND JUMPER AWG24 (UL1007)		
	S02-B1210-EA	120MM BLACK A,0	L2/L3=3.5MM	S02-D2812-IA	280MM RED J1
	S02-B1316-EA	130MM BLUE J	TINNED		
	S02-B1011-EA	100MM BROWN B	L2/L3=3.5MM	S02-D2814-IA	280MM YELLOW J2
	S02-B1512-EA	150MM RED C.K.	TINNED		
	S02-B1713-EA	170MM ORANGE D	L2/L3=3.5MM	S02-D2810-IA	280MM BLACK J3
	S02-B1719-EA	170MM WHITE H,L,I	TINNED		
	S02-B1915-EA	190MM GREEN G			
	S02-B2017-EA	200MM VIOLET M			
	S02-B2114-EA	210MM YELLOW E,F			
	S02-B1810-EA	180MM BLACK P			
	V06-20001-00	BRASS PIN			
			CONNECTOR ASSEMBLY		
			J03-0101A-00		SMK M-1 CONNECTOR 1 PIN
					WIRE TYPE: AWG24, STRAND, 1007 UL/CSA APPROVED L1=320MM, WHITE L2=3.5MM TINNED
			SOCKET H	J05-0504A-02	TAIKO TLB-P CONNECTOR WIRE TYPE: AWG24, STRAND 1007 UL/CSA APPROVED PIN 1 L1=320MM GREEN L2=3.5MM TINNED PIN 2 L1=320 BLUE L2=3.5MM TINNED PIN 3 L1=320MM RED L2=3.5MM TINNED PIN 4 L1=320MM BLACK L2=3.5MM TINNED

ELECTRICAL PARTS LIST

SCHEMATIC NO.	PART NO.	DESCRIPTION	SCHEMATIC NO.	PART NO.	DESCRIPTION
		CONTROL P.C.B. ASSEMBLY			
Q701	A01-A105E-00	2SA1015Y	SOCKET A	**J05-0209A-00	TAIKO CONNECTOR 9 PINS WIRE TYPE: AWG24, STRAND, 1007 UL/CSA APPROVED PIN 1 L1=230MM BROWN L2=3.5MM TINNED PIN 2 L1=230MM RED L2=3.5MM TINNED PIN 3 L1=230MM ORANGE L2=3.5MM TINNED PIN 4 L1=230MM YELLOW L2=3.5MM TINNED PIN 5 L1=230MM GREEN L2=3.5MM TINNED PIN 6 L1=230MM BLUE L2=3.5MM TINNED PIN 7 L1=230MM VIOLET L2=3.5MM TINNED PIN 8 L1=230MM WHITE L2=3.5MM TINNED PIN B L1=230MM BLACK L2=3.5MM TINNED
		CARBON FILM RESISTOR 1/4W +/-5%			
R707	D01-A221C-D0	220 OHM			
R704	D01-A222C-D0	2.2 KOHM			
R701	D01-A047C-D0	4.7 OHM			
R705	D01-A562C-D0	5.6 KOHM			
R703	D01-A223C-D0	22 KOHM			
R706	D01-A823C-D0	82 KOHM			
R702	D01-A224C-D0	220 KOHM			
		CERAMIC CAPACITOR			
C705	F01-C203F-G0	0.02UF 50V +/-80-20%			
C703	F01-C331F-C0	330PF 50V +/-5%			
		ELECTROLYTIC CAPACITOR			
C702	F01-E335F-E0	3.3UF 50V +/-20%			
C701	F01-E105F-E0	1UF 50V +/-20%			
C704	F01-E476B-E0	47UF 10V +/-20%			
PCB003	**G01-A819C-01	CONTROL P.C. BOARD			
L701	H05-0111A-00	CHOKE COIL 100UH			
SW701, 702, 703, 704, 705	K13-0101A-01	TACT SWITCH (SHAFT LENGTH 1.5MM) ALTERNATE (K07-0101A-01)			
	K13-0101A-02	TACT SWITCH (SHAFT LENGTH 6MM) ALTERNATE (K07-0101A-02)			
IC701	016-01080-00	IC CX20106A			
LD701	P01-06010-00	PHOTO DIODE TPS703 ALTERNATE PH302 (P04-06010-00)			
LD702	P01-01010-00	LED RED TLR124			
SOCKET B	J05-0204A-01	TAIKO CONNECTOR 4 PINS H-TL25H04 B1-T 001T-5100 WIRE TYPE: AWG26 STRAND, 1007 PIN 1 L1=260MM BLACK L2=3.5MM TINNED PIN 2 L1=320MM RED L2=3.5MM TINNED PIN 3 L1=260MM WHITE L2=3.5MM TINNED PIN 4 L1=260MM YELLOW L2=3.5MM TINNED			

SCHEMATIC NO.	PART NO	DESCRIPTION
A.V. INPUT P.C.B. ASSEMBLY		
TRANSISTOR		
Q1101, 1102, 1104A01-C815E-00	2SC1815Y	
Q1103	A01-A015E-00	2SA1015Y
DIODE		
D1101, 1102	B01-01148-00	1N4148
CARBON FILM RESISTOR +/-5% 1/4W		
R1110	D01-A101C-D0	100 OHM
R1105	D01-A471C-D0	4700HM
R1108	D01-A272C-D0	2.7 KOHM
R1106	D01-A332C-D0	3.3 KOHM
R1104	D01-A562C-D0	5.6 KOHM
R1109, 1101	D01-A103C-D0	10 KOHM
R1102, 1103	D01-A223C-D0	22 KOHM
R1107	D01-A822C-D0	8.2 KOHM
ELECTRLYTIC CAPACITOR (SINGLE END TYPE)		
C1101, 1102	F01-E225F-E0	2.2UF 50V +/-20%
C1104	F01-E106C-E0	10UF 16V +/-20%
C1103	F01-E475D-E0	4.7UF 25V +/-20%
C1112	F01-E107C-E0	100UF 16V +/-20%
** G01-A819H-20 AV INPUT P.C. BOARD (40MM X 83MM X 1.6MM)		
SOCKET D	** J05-0206A-01	TAIKO TL-25 V-TYPE CONNECTOR 6 PINS WIRE TYPE: AWG26 STRAND UL1007 PIN 1 L1=110MM BROWN L2=3.5MM TINNED PIN 2 L1=120MM RED L2=3.5MM TINNED PIN 3 L1=120MM ORANGE L2=3.5MM TINNED PIN 4 L1=150MM YELLOW L2=3.5MM TINNED PIN 5 L1=140MM GREEN L2=3.5MM TINNED PIN 6 L1=110MM BLUE L2=3.5MM TINNED
V03-11001-00		SCART SOCKET (21 PIN)

SCHEMATIC NO.	PART NO.	DESCRIPTION
COMPONENT NOT MOUNTED ON PC8		
L2001	H07-0801A-00	DEGAUSSING COIL
	L02-01003-00	2-3/4" LOUND
	T01-01340-00	SPEAKER 8 OHM 1W COLOR PICTURE TUBE A34JAN40X02(W)
	J05-0202A-00	TAIKO TL-25 V-TYPE CONNECTOR 2 PIN WIRE TYPE: AWG24, STRAND, 1007 UL/CSA APPROVED PIN 1 L1=320MM BLACK L2=3.5MM TINNED PIN 2 L1=320MM WHITE L2=3.5MM TINNED
FOR CRT GROUNDING	J05-0101A-10	TAIKO TS-80 CONNECTOR 1 PIN WIRE TYPE: AWG24, STRAND 1015 UL/CSA APPROVED L1=280MM BLACK L2=10MM NON-TINNED
*****AC LINE FILTER PC8 ASSEMBLY*****		
C1202, 1201	F05-P474 V-E0	FILM CAPACITOR 0.47UF AC 250V
L1201	** G01-A819F-02	AC LINE FILTER P.C. BOARD
	H16-0601C-00	AC LINE FILTER
	** S05-A2620-0D	AC LINE CORD VDE 2.6M VDE
SW1201	K14-0201E-00	POWER SWITCH "ITT" 2PIT
F1201	V01-02010-00	FUSE T2A AC 250V
	V04-06001-00	FUSE HOLDER
FOR D2 (NEUTRAL LINE)	J05-0101A-11	TAIKO TS-80 CONNECTOR 1 PIN WIRE TYPE: AWG22, STRAND DOUBLE INSULATION, 1617 UL/CSA APPROVED L1=460MM BLUE L2=10MM NON-TINNED
FOR D1 (LIVE LINE)	J05-0101A-12	TAIKO TS-80 CONNECTOR 1 PIN WIRE TYPE: AWG22, STRAND DOUBLE INSULATION 1617 UL/CSA APPROVED L1=460MM BROWN L2=10MM NON-TINNED
REMARK: **NEW PARTS		

SCHEMATIC NO.	PART NO.	DESCRIPTION
HAND SET PCB ASSEMBLY		
TRANSISTOR		
Q801	A01-C815E-00	2SC1815Y
Q802	A01-C120E-00	2SC2120-Y
DIODE		
D801	B01-01148-00	IN4148
D802	B01-01001-00	IN4001
CARBON FILM RESISTOR 1/4W +/-5%		
R801, 802	D01-A010C-D0	1 OHM
R804	D01-A101C-D0	100 OHM
R803	D01-A223C-00	22 KOHM
ELECTROLYTIC CAPACITOR (SINGLE ENDED TYPE)		
C803	F01-E107B-E0	100UF 10V +/-20%
CERAMIC CAPACITOR		
C801, 802	F01-C101FC-C0	100PF 50V +/-5%
	**G01-B819E-02	HAND SET P.C.B BOARD
X801	M01-B4551-00	CERAMIC RESONATOR 455KHz
INTEGRATED CIRCUIT		
IC801	004-01200-00	IC M50560-001P
LD801, 802	B01-06110-00	INFRARED LED TLN105 ALTERNATE INFRARED LED SE303 A-C (B02-06110-00)
STRAND JUMPER WIRE AWG26 (UL 1007)		
L2/L3=3.5MM	S00-D4002-JA	40MM RED B+
TINNED		
L2/L3=3.5MM	S00-D4000-JA	40MM BLACK B-
TINNED		

SPECIFICATIONS

Television Systems	: B/G system for 625 lines
Colour System	: PAL
Channel Coverage	: VHF(L) Channel 2 to 4 VHF(H) Channel 5 to 12 UHF Channel 21 to 69
Picture Tube Size	: 37 cm
Aerial	: 75 ohm Unbalance (EXIT)
Speaker	: 8 Ohm
Audio Output	: 1.5W
Power Requirements	: AC 230V 50 Hz
Power Consumption	: 60W (MAX.)
Dimensions (WxHxD)	: 388 mm x 362 mm x 370 mm
Weight	: 10.5 Kg.

* Design and specifications are subject to change without notice.